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Think Math!

Practice Book



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HARCOURT SCHOOL PUBLISHERS

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Introducing Magic Squares

In a magic square, each row, column, and diagonal sums to the same number. Check to see whether these grids are magic squares.

1

2	2	1	
1	2	3	6
3	2	1	
6			

☐ Yes ☐ No
2

3	2	7	
8	4	0	12
1	6	6	

☐ Yes ☐ No
3

15	14	7	
4	12	20	
17	10	9	
	36		

☐ Yes ☐ No

Complete the magic squares.

4

			18
8		3	18
	6		18
9	5	4	18
18	18	18	18

5

			12
7		3	
	4		12
5		1	
12			

6

4			
	7		
10	1	10	21



Test Prep

- 7** Cedric has a quarter to buy pencils. Pencils cost 4¢ each, or 3 for 10¢. If Cedric buys 7 pencils, how much change will he receive?

- A. 1¢
B. 3¢
C. 9¢
D. 11¢

Adding Magic Squares

Add the magic squares.

1

2	1	3		8	4	6		10		
3	2	1	+	4	6	8	=		8	
1	3	2		6	8	4		7		
			6				18			

24

Complete the magic squares and then add them.

2

9		7		6		4				
5	7		+	4	6	8	=			
7	9	5		8	4					
			21							

3

	3	2		7		9				
	2	1	+		7		=			
2		3		5	9	7				



Test Prep

- 4 What is the value of $8 + (6 \div 2)$? A. 7 C. 11
B. 10 D. 16

Subtracting Magic Squares

Subtract the magic squares.

1

$8 - 2 = 6$

8	1	6
3	5	7
4	9	2

2	1	3
3	2	1
1	3	2

6		
	3	
3		

↓ ↓ ↓

2

13		8
4	9	
10	12	5

8		6
3	5	7
4	9	

3

	5	11
	9	9
7		7

5		2
	4	
6	3	3

Test Prep

- 4 Which fact is in the same fact family as $72 \div 9 = \blacksquare$?

- A. $9 \times \blacksquare = 72$
 B. $72 \times 9 = \blacksquare$
 C. $\blacksquare \div 72 = 9$
 D. $9 \div \blacksquare = 72$

Multiplying Magic Squares

Multiply each magic square by the given number.

1

8	1	6		16	2	
3	5	7	$\times 2 =$	6	10	
4	9	2				

2

5	0	7			
6	4	2	$\times 4 =$		8
1	8	3			

3

4	9	2			
3	5	7	$\times 1 =$		
8	1	6		8	

4

5	0	7			
6	4	2	$\times 6 =$		
1	8	3			

5

8	1	6			18
3	5	7	$\times 3 =$		
4	9	2			

6

6	7	2			
1	5	9	$\times 5 =$		
8	3	4			

Test Prep

- 7 How many ways can you make 35¢ using only dimes, nickels, or quarters? Explain how you found your answer.



Dividing Magic Squares by Numbers

Divide each magic square by the given number.

1

40	5	30			
15	25	35	$\div 5 =$		
20	45	10			

2

54	63	18			
9	45	81	$\div 9 =$		
72	27	36			

3

24	10	20	12		10
		22	$\div 2 =$		11
16		12			

4

	36				
	28		$\div 4 =$		
40	20	24			

5

	30	27			
36		12	$\div 3 =$		
		33			

6

30		40			
55	45		$\div 5 =$		
		60			



Test Prep

- 7 Sally bought 2 rulers for 15¢ each and 7 erasers for 3¢ each. How much did Sally spend? Explain.

Working Backward and Forward

Work backward to complete the magic squares.

1

					5	10	3
					4	6	8
					9	2	7

2

					4	9	8
				$\div 6 =$	11	7	3
					6	5	10

3

					11	1	15
			$\div 10 =$		13	9	5
					3	17	7

4

					2	7	6
				÷ 8 =	9	5	1
					4	3	8

5

					28	63	14
			$\times 7 =$		21	35	49
					56	7	42

6

					50	0	70
			$\times 10 =$		60	40	20
					10	80	30



Test Prep

- 7 Shaina needs to leave for school in 25 minutes. At what time does she need to leave? Explain how you found your answer.



Introducing Arrays

Write the number of tiles inside each rectangle.

	4	8	3	6	9	5
3						
6						
8						
4						
7						



Test Prep

- 1 Bill spent \$9.20 for two toys. Which two toys did he buy? Explain how you found your answer.

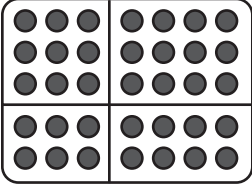
Toy Sale

Car	\$1.30
Boat	\$1.80
Jet	\$5.80
Train	\$2.50
Plane	\$3.40
Rocket	\$7.30

Separating Arrays

For each picture, figure out how many dots are in each section. Also find the total number of dots in each array.

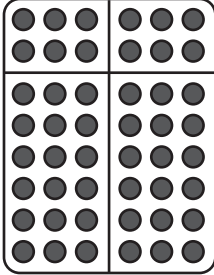
1



	12
6	

Total

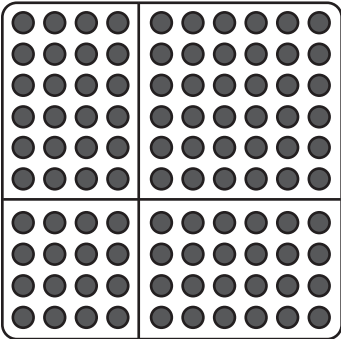
2



	18

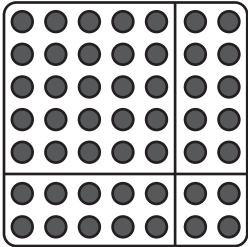
Total

3



Total

4

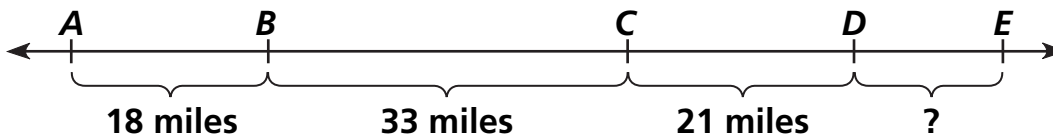


	4

Total



Test Prep



- 5** It is 85 miles from **A** to **E**. Find the distance between **D** and **E**.

A. 3 miles C. 11 miles
B. 7 miles D. 13 miles

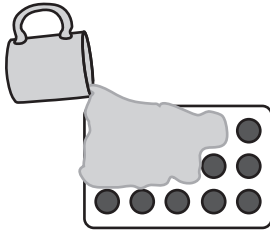
- 6** Mr. Logan drove from **B** to **C**, then to **D**, before going back to **B**. How far did Mr. Logan drive?

A. 54 miles C. 108 miles
B. 72 miles D. 144 miles

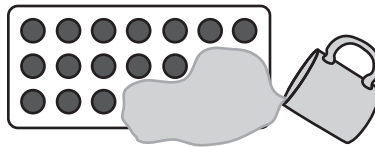
Adding Array Sections

Oh no! Juice spilled on the dot displays.
How many dots were there before the spill?

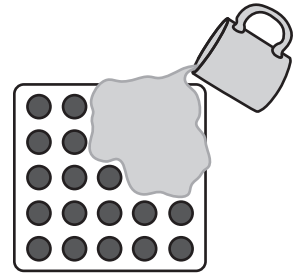
1

 dots

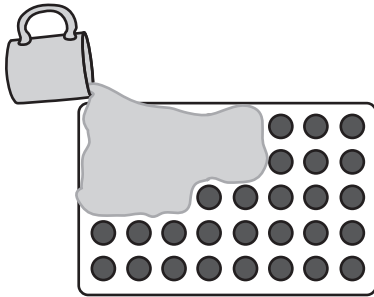
2

 dots

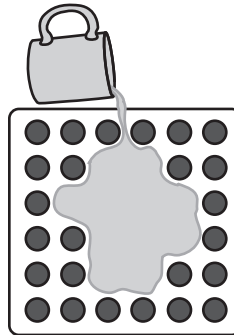
3

 dots

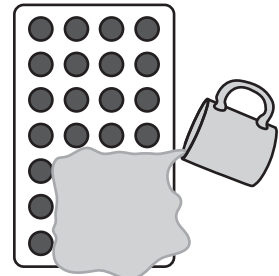
4

 dots

5

 dots

6

 dots

Test Prep

- 7 Maria has 12 coins that total 28¢. What coins does she have? Explain how you found your answer.

Exploring a Multiplication Shortcut

Fill in the multiplication tables. Look for shortcuts to help you.

1

	1	2	3	4
$\times 3$	3	6		

2

	2	4	6	8
$\times 4$				

3

	3	6	9	10
$\times 5$				

4

	1	2	3	5
$\times 6$				

5

	1	3	4	7
$\times 7$				

6

	2	4	8	10
$\times 10$				



Test Prep

- 7 Ms. Schmidt bought 26 notebooks for her class. Notebooks come in packs of 5 and packs of 3. What are 2 different combinations of notebooks she might have bought? Explain how you found your answer.

Using a Multiplication Shortcut

Fill in the multiplication tables. Look for shortcuts.

1

×	5	3	8
5	25	15	
2	10		
7	35		

2

×	5	2	7
5			
3			
8			

3

×	3	6	9
3			
6			
9			

4

×	5	10	15
2			
4			
6			

5

×	7	8	9
5			
10			
15	105		135

6

×	10	8	18
5			
4			
9			



Test Prep

7 Who has the most money saved?

- A. Emma C. Allen
B. Jenny D. Peter

8 How much more money does Evan have than Allen?

- A. \$0.50 C. \$2.25
B. \$1.50 D. \$2.50

Dollars Saved in the Bank

Emma ● ● ● ● ◐

Evan ● ● ● ◐

Jenny ● ● ● ● ● ●

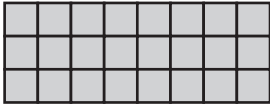
Allen ● ● ◐

Peter ● ● ● ● ● ● ◐

Each ● represents one dollar.

Connecting Multiplication and Division

Complete the fact families.

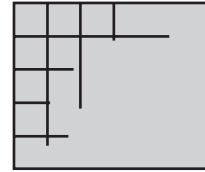
1

$$\boxed{3} \times \boxed{8} = \boxed{24}$$

$$\boxed{} \times \boxed{} = \boxed{}$$

$$\boxed{24} \div \boxed{} = \boxed{}$$

$$\boxed{} \div \boxed{} = \boxed{}$$

2

$$\boxed{} \times \boxed{} = 30$$

$$\boxed{} \times \boxed{} = \boxed{}$$

$$\boxed{} \div \boxed{} = \boxed{}$$

$$\boxed{} \div \boxed{} = \boxed{}$$

3

$$7 \times 4 = \boxed{}$$

$$\boxed{} \times \boxed{} = \boxed{}$$

$$\boxed{} \div \boxed{} = \boxed{}$$

$$\boxed{} \div \boxed{} = \boxed{}$$

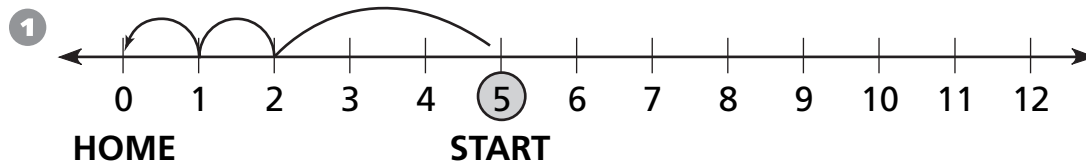


Test Prep

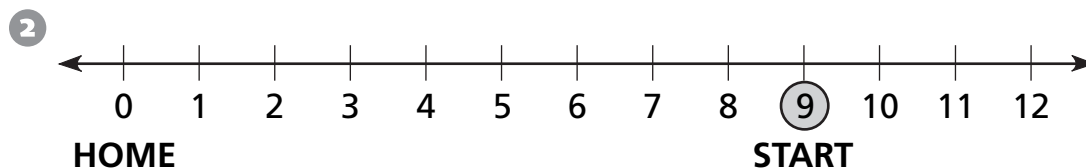
- 4** Cecilia bought 4 packs of beads. Each pack had 15 beads. If she used 37 beads, how many does she have left? Explain your answer.

Arrays with Leftovers

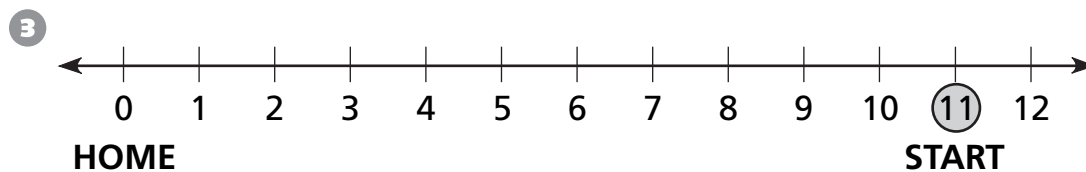
All jumps must be either 3 spaces long or 1 space long.
Show how to get home in the fewest jumps possible.



jump of 3, jumps of 1



jumps of 3, jumps of 1



jumps of 3, jumps of 1



Test Prep

- 4 Sue drove from Hartford to Boston in 4 hours and 15 minutes. She left at 11:20 A.M. What time did she arrive in Boston?

A. 2:35 P.M. C. 3:55 P.M.
B. 3:35 P.M. D. 4:35 P.M.

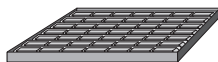
- 5 Which of the following is not in the fact family for 2, 8, and 16?

A. $8 \times 2 = 16$
B. $16 \div 2 = 8$
C. $8 \div 2 = 4$
D. $2 \times 8 = 16$

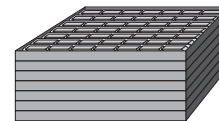
Combining and Reducing Eraser Shipments



7 erasers to a pack
(7 erasers total)



7 packs to a box
(49 erasers total)








7 boxes to a crate
(343 erasers total)

Circle the number that is the best estimate for each amount of erasers.

1 2 boxes of erasers	75	100	125
2 2 crates	700	750	800
3 4 crates	1000	1200	1400
4 1 box and 1 crate	360	400	420

Use estimation to fill in the blanks.

- 5 A customer ordered **428 erasers**. The shipment contained _____ full .
- 6 A customer ordered **106 erasers**. The shipment contained _____ full .
- 7 A customer ordered **43 erasers**. The shipment contained _____ full .
- 8 A customer ordered **312 erasers**. The shipment contained _____ full .
- 9 A customer ordered **214 erasers**. The shipment contained _____ full .



Test Prep

- 10 There are 4 quarts in 1 gallon. How many quarts are there in 5 gallons? Tell how you know.

Shipment Records at the Eraser Store

• an eraser

— a pack of 7 erasers

▣ a box of 7 packs (49 erasers)

▣ a crate of 7 boxes (49 packs or 343 erasers)

1 Complete the records.

Shipment	Total Number of Erasers	Shorthand	<div>▣ ▣ — •</div>
A	10	— • • •	<div>____, ____, ____, ____</div>
B	100		<div><u> 0 </u>, <u> 2 </u>, <u> 0 </u>, <u> 2 </u></div>
C			<div><u> 0 </u>, <u> 6 </u>, <u> 0 </u>, <u> 6 </u></div>
D	500	<div>▣ ▣ ▣ — • • •</div>	<div>____, ____, ____, ____</div>
E		<div>▣ ▣ ▣ ▣ — • • • ▣ ▣ ▣ ▣ — • • •</div>	<div>____, ____, ____, ____</div>

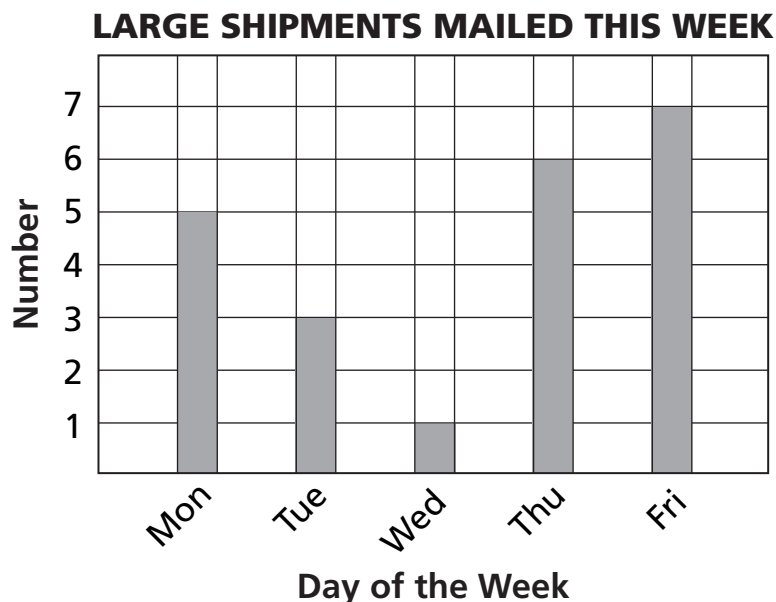


Test Prep

2 Mary had 26 books to arrange on 3 shelves. She wanted the number of books on each shelf to be the same, but that is impossible. She wanted two shelves to have the same number of books. How could she arrange the books?

Organizing Shipment Data

Use the graph from the Eraser Store to answer the questions below.



- 1 Which day had the most large shipments? _____
- 2 Between which two consecutive days did the number of large shipments increase the most? _____
- 3 How many large shipments were mailed this week? _____



Test Prep

- 4 In which number sentence is 8 the missing number?
A. $63 \div 9 = \blacksquare$ C. $49 \div 7 = \blacksquare$
B. $48 \div \blacksquare = 6$ D. $56 \div \blacksquare = 9$
- 5 Which number goes in the box?
 $37 + \blacksquare = 100$
A. 63 C. 67
B. 73 D. 57

Combining and Reducing Shipments

























• an eraser

□ a box of 7 packs

— a pack of 7 erasers

▣ a crate of 7 boxes

Combine or separate the shipments.

<p>1</p> <div>     </div> <div>0, 2, 3, 1</div> <div>+ 1, 0, 2, 4</div> <hr/> <div>_____, _____, _____, _____</div>	<p>2</p> <div>     </div> <div>1, 0, 6, 6</div> <div>− 0, 0, 5, 3</div> <hr/> <div>_____, _____, _____, _____</div>	<p>3</p> <div>     </div> <div>0, 0, 5, 5</div> <div>+ 0, 1, 0, 4</div> <hr/> <div>_____, _____, _____, _____</div>
<p>4</p> <div>     </div> <div>1, 1, 4, 6</div> <div>− 0, 1, 5, 5</div> <hr/> <div>0 _____, _____, _____, _____</div>	<p>5</p> <div>     </div> <div>0, 0, 3, 6</div> <div>+ 1, 0, 3, 3</div> <hr/> <div>_____, _____, _____, _____</div>	<p>6</p> <div>     </div> <div>2, 1, 5, 4</div> <div>− 0, 2, 6, 5</div> <hr/> <div>_____, _____, _____, _____</div>



Test Prep

- 7 What number comes next? Explain how you found the answer.

1, 4, 9, 16, 25, . . .

Packaging Erasers in Tens



• an eraser

□ a box of 10 packs



— a pack of 10 erasers

▢ a crate of 10 boxes



Add or subtract the shipments.

1   — •



$$\begin{array}{r} 1, \quad 5, \quad 8, \quad 4 \\ - 0, \quad 4, \quad 6, \quad 1 \\ \hline \end{array}$$

2   — •



$$\begin{array}{r} 2, \quad 2, \quad 6, \quad 5 \\ + 0, \quad 2, \quad 8, \quad 4 \\ \hline \end{array}$$

3   — •



$$\begin{array}{r} 6, \quad 0, \quad 7, \quad 9 \\ + 1, \quad 1, \quad 2, \quad 6 \\ \hline \end{array}$$

4   — •

$$\begin{array}{r} 7, \quad 5, \quad 4, \quad 2 \\ - 1, \quad 4, \quad 8, \quad 7 \\ \hline \end{array}$$

5   — •

$$\begin{array}{r} 1, \quad 8, \quad 3, \quad 7 \\ + 1, \quad 1, \quad 4, \quad 9 \\ \hline \end{array}$$

6   — •

$$\begin{array}{r} 6, \quad 7, \quad 2, \quad 0 \\ - 1, \quad 0, \quad 8, \quad 8 \\ \hline \end{array}$$



Test Prep

- 7 The chart shows how many people visited a zoo during the first 4 years that it was open. Which list shows the number of visitors in order from least to greatest?

Year	Number of Visitors
1	4,290
2	3,924
3	3,409
4	4,092

- A. 4,290, 4,092, 3,924, 3,409
- B. 3,409, 3,924, 4,290, 4,092
- C. 4,290, 3,924, 3,409, 4,092
- D. 3,409, 3,924, 4,092, 4,290

Multiple Shipments



• an eraser

□ a box of 10 packs

— a pack of 10 erasers

▢ a crate of 10 boxes

Find the total shipments.

1   — •

0, 1, 2, 4

$$\begin{array}{r} \times 2 \\ \hline \end{array}$$

_____, _____, _____, _____

2   — •

1, 1, 6, 3

$$\begin{array}{r} \times 3 \\ \hline \end{array}$$

_____, _____, _____, _____

3   — •

1, 4, 0, 8

$$\begin{array}{r} \times 7 \\ \hline \end{array}$$


_____, _____, _____, _____

4   — •

1, 1, 5, 6

$$\begin{array}{r} \times 6 \\ \hline \end{array}$$



_____, _____, _____, _____

5   — •

0, 0, 7, 9

$$\begin{array}{r} \times 8 \\ \hline \end{array}$$

_____, _____, _____, _____

6   — •

1, 0, 8, 5

$$\begin{array}{r} \times 4 \\ \hline \end{array}$$

_____, _____, _____, _____



Test Prep

- 7 Which word problem could be represented by the number sentence $5 \times 4 = 20$?
- Kim had 5 notebooks. She bought 4 more notebooks. How many notebooks did she have?
 - Kim bought 5 packages of notebooks with 4 notebooks in each package. How many notebooks did she buy?
 - Kim had 5 notebooks. She gave away 4 of them. How many notebooks did she have left?
 - Kim had 5 packages of notebooks. She unpacked the notebooks and put them in 4 stacks. How many notebooks were in each stack?

Sharing Shipments

Complete the orders.

Remember that there are **10** erasers in a pack,
10 packs in a box, and **10** boxes in a crate.

1

		—	•
1,	8,	0,	3
<hr/>			
—	0,	4,	9, 6
<hr/>			
<hr/>			

2

		—	•
0,	0,	9,	2
<hr/>			
+	1,	8,	0, 9
<hr/>			
<hr/>			

3

		—	•
1,	3,	5,	5
<hr/>			
×			
<hr/>			
<hr/>			

4

		—	•
<hr/>			
3	0,	9,	3, 6
<hr/>			

5

		—	•
0,	8,	2,	4
<hr/>			
×			
<hr/>			
<hr/>			

6

		—	•
<hr/>			
2	1, 2,	8,	8
<hr/>			



Test Prep

- 7 Maple Park Elementary School had a jump rope contest. Peter jumped 296 times. Selene jumped 407 times. What is the best estimate of how many more times Selene jumped than Peter?

- A. 200 C. 150
B. 250 D. 100

Connecting Shipment Records to Place Value

Oh, no! Someone forgot most of the commas!
Oh well, you know how to complete the problems anyway.

Remember that there are **10** erasers in a pack,
10 packs in a box, and **10** boxes in a case.

<p>1</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 2, 5 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 6 9 </div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> + <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 3, 3 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 1 8 </div> </div> </div> <hr style="border: 0.5px solid black; margin: 5px 0;"/> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> </div>	<p>2</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 5, 7 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 2 6 </div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> − <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 2, 3 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 4 5 </div> </div> </div> <hr style="border: 0.5px solid black; margin: 5px 0;"/> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> </div>	<p>3</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 1, 3 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 8 6 </div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> × <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 4 </div> </div> </div> <hr style="border: 0.5px solid black; margin: 5px 0;"/> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> </div>
<p>4</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="display: flex; justify-content: center; gap: 5px;"> 6, 6 </div> </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 0 9 </div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> <div style="border-right: 1px solid black; padding-right: 5px; margin-right: 5px;">3</div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border-bottom: 1px solid black; width: 30px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: center; gap: 5px;"> 6, 6 </div> </div> </div> </div>	<p>5</p> <p style="margin-top: 20px;">1,050 ÷ 10 = _____</p>	



Test Prep

6 Brianna, Charlotte, and Dan had a jumping contest,

- Brianna jumped 2 feet.
- Charlotte jumped 1 foot more than Brianna.
- Dan jumped 1 foot less than Brianna.

How much farther did Charlotte jump than Dan? Explain your answer.

Estimating Shipment Orders

Estimate the results.

<p>1</p> $\begin{array}{r} 3, \quad 5 \quad 8 \quad 9 \\ + 4, \quad 3 \quad 1 \quad 6 \\ \hline \end{array}$ <p>_____, X X X</p>	<p>2</p> $\begin{array}{r} 5, \quad 6 \quad 2 \quad 6 \\ - 1, \quad 2 \quad 4 \quad 5 \\ \hline \end{array}$ <p>_____, X X X</p>	<p>3</p> $\begin{array}{r} \text{_____, ____ X X} \\ 2 \overline{) 3, \quad 0 \quad 6 \quad 2} \end{array}$
<p>4</p> $\begin{array}{r} \quad \quad 3 \quad 0 \quad 4 \\ \times \quad \quad \quad 5 \\ \hline \end{array}$ <p>_____, ____ X X</p>	<p>5</p> $\begin{array}{r} 1, \quad 2 \quad 9 \quad 2 \\ \times \quad \quad \quad 4 \\ \hline \end{array}$ <p>_____, X X X</p>	<p>6</p> $\begin{array}{r} \quad \quad \quad \text{____ X X} \\ 4 \overline{) 2, \quad 5 \quad 8 \quad 4} \end{array}$



Test Prep

- 7** To get ready for her class, Ms. Mewton wants to have 4 crayons on each of 7 tables in her classroom. She has only 14 crayons. Which incomplete number sentence shows how many more crayons she needs?

A. $(7 \times 4) - 14 = \blacksquare$

C. $(14 - 4) \times 7 = \blacksquare$

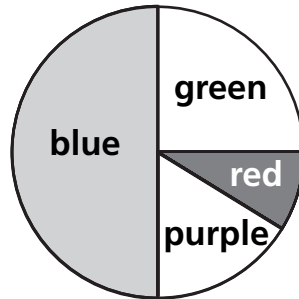
B. $(14 - 7) \times 4 = \blacksquare$

D. $(14 + 4) \times 7 = \blacksquare$

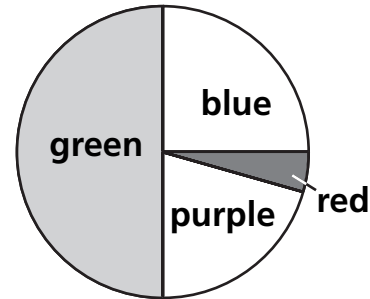
Introducing Angles

The pie charts show two classes' favorite colors:

MS. PANUCCI'S CLASS



MR. BOWEN'S CLASS

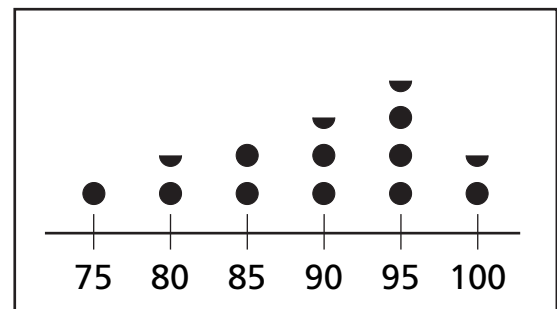


Write if the statements are *true* or *false*.

- 1 In Ms. Panucci's class, less than half of the students like green. _____
- 2 The same color is the least popular in both classes. _____
- 3 The same color is the most popular in both classes. _____
- 4 In Mr. Bowen's class, more students like green than all the rest of the colors put together. _____
- 5 Blue is more popular in Ms. Panucci's class than in Mr. Bowen's. _____

Test Prep

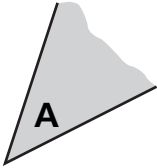
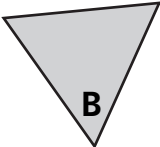
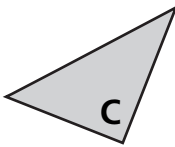
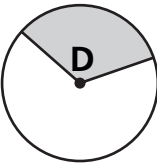
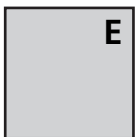
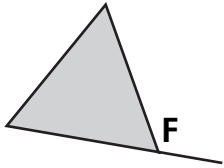
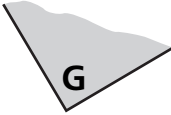

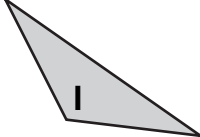
- 6 This graph shows how students scored on a test. How many students scored 90 or higher?
- A. 5 students C. 15 students
B. 7 students D. 24 students



Key: Each ● = 2 students.

Classifying Angles

Label each angle *acute*, *right*, or *obtuse*.

1  _____ acute	2  _____	3  _____
4  _____ obtuse	5  _____	6  _____
7  _____	8  _____	9  _____



Test Prep

- 10 Jamie, Frank, and Andrea each measured the length of the same classroom using their own feet as the unit of measurement.
- Jamie reported a length that measured **67** of her feet.
 - Frank reported a length that measured **81** of his feet.
 - Andrea reported a length that measured **92** of her feet.

Explain how you know which student had the smallest feet.

Classifying Triangles by Angles

- 5 Name the angles from the smallest to the largest:

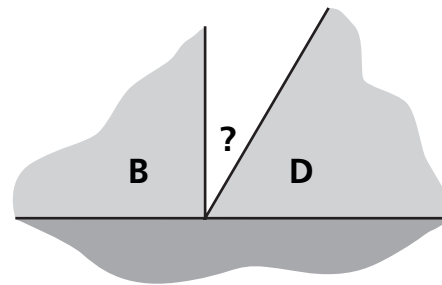
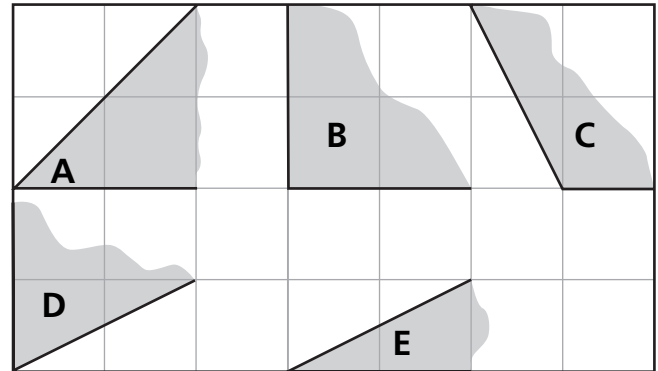
$\angle E$, \angle , \angle , \angle , \angle

- 2 \angle , \angle , and \angle are acute angles.

\angle is a right angle.

\angle is an obtuse angle.

- 3 \angle would fit in the empty space.



Test Prep

- 4 Jacob spent exactly \$8.65 on lunch for himself and two friends. What did he buy? Explain your answer.

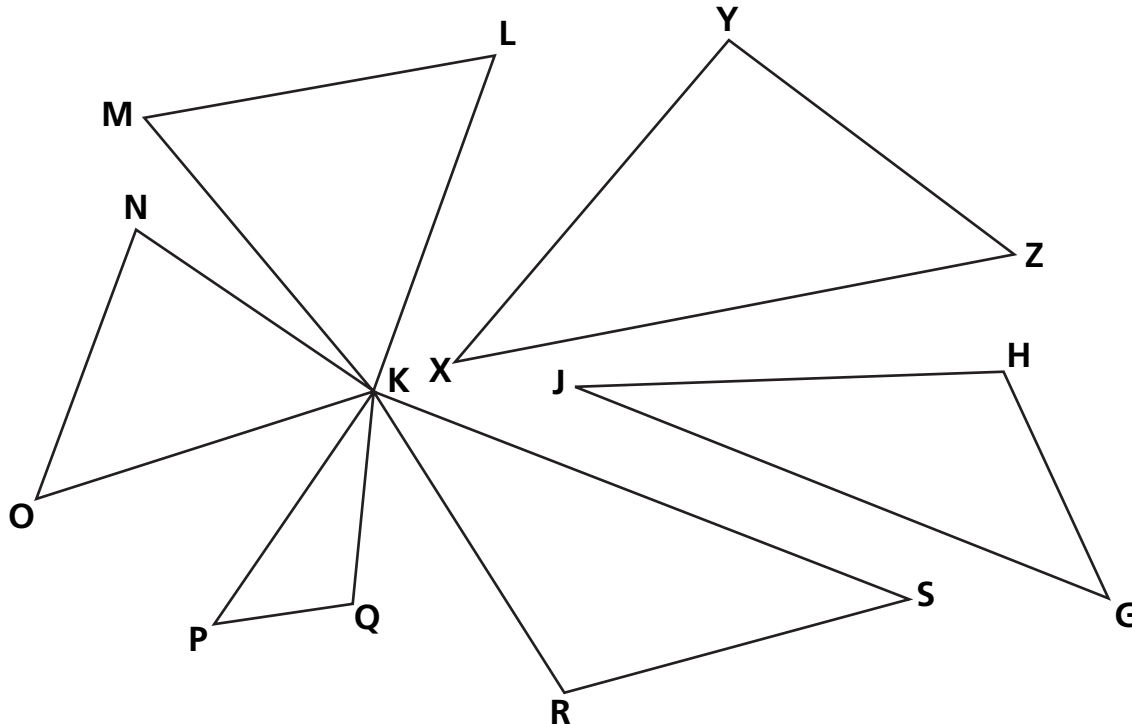
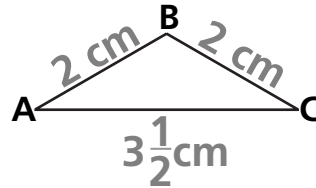
Cheese Sandwich . .	\$1.50
Hamburger	\$1.75
Hot Dog	\$1.30

Classifying Triangles by Side Length

Measure and write the sides of the triangles in centimeters. Then, classify the triangles.

Example:

Isosceles triangle: $\triangle ABC$



Equilateral triangle(s): _____ Isosceles triangle(s): _____

Scalene triangle(s): _____

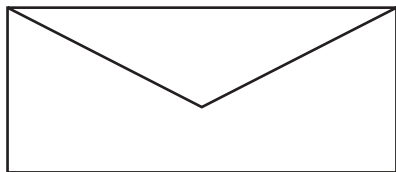


Test Prep

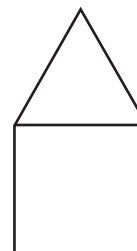
- Two friends plan to equally share the cost of a game. The game costs \$29.99 including tax. Which is the best estimate of the amount each of them will have to pay?
 A. \$10 C. \$15
 B. \$14 D. \$20
- Russell spent 90¢ on 6 note pads. He spent 60¢ on 10 pencils. How much more does one note pad cost than one pencil?
 A. 6¢ C. 15¢
 B. 9¢ D. 20¢

Introducing Perpendicular and Parallel Lines

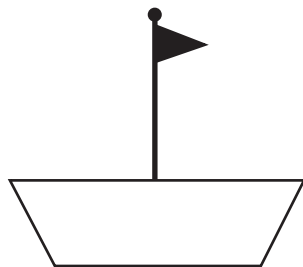
How many pairs of parallel lines are in these pictures?

1

_____ pair(s) of parallel lines

2

_____ pair(s) of parallel lines

3

_____ pair(s) of parallel lines

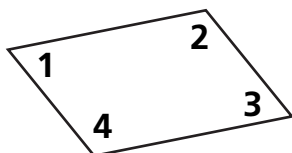
4

_____ pair(s) of parallel lines



Test Prep

5 Which angles are obtuse?




- A. Angles 1 and 2
- B. Angles 1 and 3
- C. Angles 1 and 4
- D. Angles 2 and 4


6 Enrique has 18 markers. He gives 5 of them to Kevin so that they each have the same number. How many markers do they have in all?

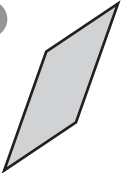
- A. 36
- B. 26
- C. 18
- D. 13


Classifying Quadrilaterals by the Number of Parallel Sides

Fill in the blanks for these figures.

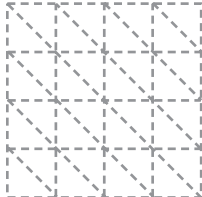
1  2 pair(s) of parallel sides
2 pair(s) of equal sides
4 right angles

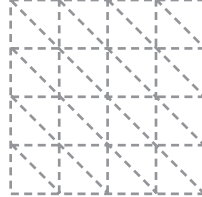
2  _____ pair(s) of parallel sides
2 pair(s) of equal sides
 _____ right angles

3  _____ pair(s) of parallel sides
 _____ pair(s) of equal sides
 _____ right angles

4  _____ pair(s) of parallel sides
 _____ pair(s) of equal sides
 _____ right angles

Draw the quadrilaterals described below. You may trace the dotted lines to help.

5  1 pair of parallel sides
 Exactly 2 right angles

6  2 pairs of parallel sides
 4 right angles
 4 equal sides



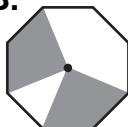
Test Prep

- 7** Klarke is throwing darts onto different targets. He never misses the target completely. Which target gives him the best chance of hitting a shaded area?

A.



B.



C.



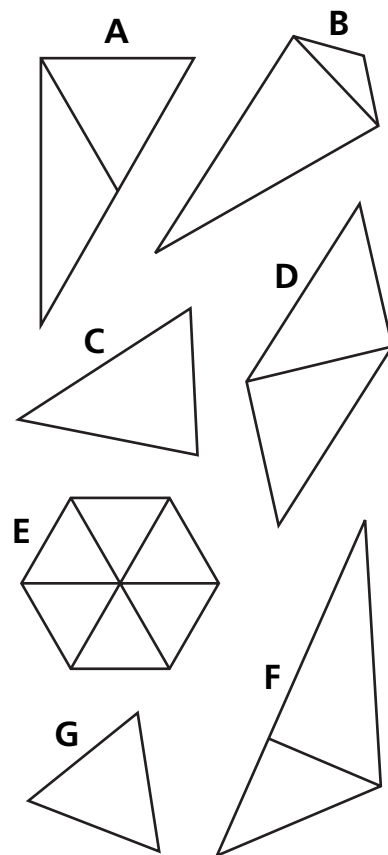
D.



Classifying Parallelograms

Match each figure to its description.
You may use a ruler to help.

- 1 An acute, scalene triangle _____
- 2 A right triangle made of two isosceles triangles—an acute one and an obtuse one _____
- 3 An equilateral triangle _____
- 4 A quadrilateral made of two isosceles triangles—an acute one and an obtuse one _____
- 5 A quadrilateral made of two congruent triangles _____
- 6 A figure made of equilateral triangles _____
- 7 A triangle made of two right triangles _____



Test Prep

- 8 Long balloons cost 10¢ each. Round balloons cost 15¢ each. Marie spent 90¢ on balloons. What is the greatest number of balloons she could have bought if she bought at least one of each kind? Explain your answer.

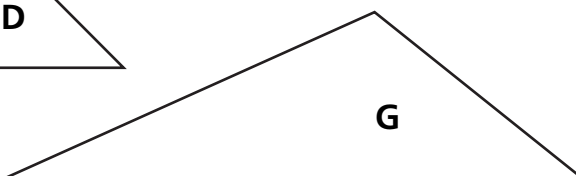
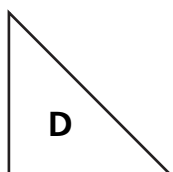
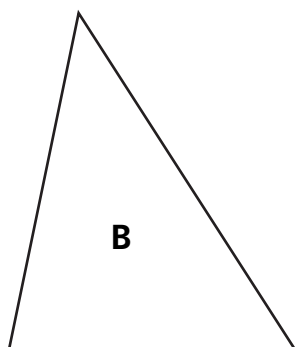
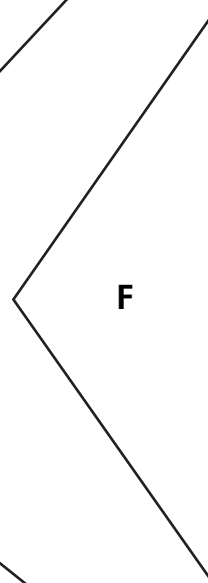
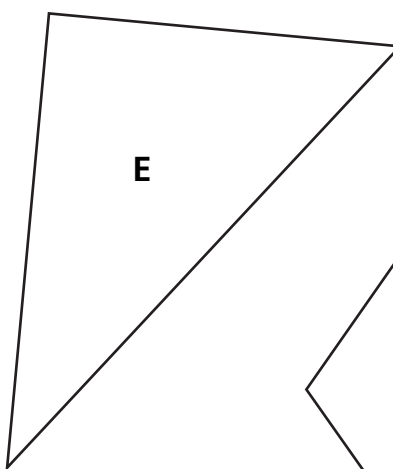
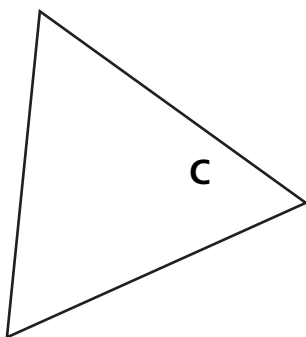
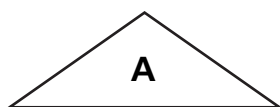
Symmetry in Triangles and Quadrilaterals

Classify the triangles by their lines of symmetry.

0 lines of symmetry: _____

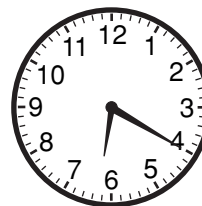
1 line of symmetry: _____

3 lines of symmetry: _____



Test Prep

- 1 Johanna started to play a video game at 4:45 P.M.
When she finished playing, her watch showed this time:



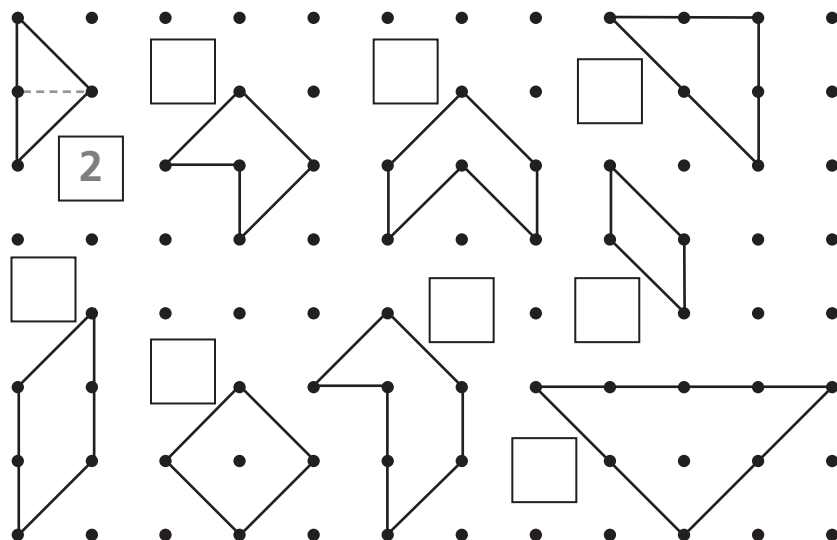
How long did she play? Explain.

Working with Transformations

- 1 How many pieces this size and shape will make the figures on the dot grid?



Draw lines to show the pieces.



- 2 This pattern was made by repeating a figure.



Draw the repeating figure.



The figure was: (circle all that could apply)

Translated
Rotated
Reflected

Test Prep

- 3 In a room, chairs were arranged in 3 rows. There were 18 chairs in each row. After a meeting, 3 chairs were removed from one of the rows.

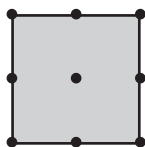
Which number sentence can be used to find the total number of chairs remaining after the meeting?

- A. $3 \times 18 - 3 = \blacksquare$ C. $2 \times 18 = \blacksquare$
B. $3 \times 18 + 3 = \blacksquare$ D. $2 \times 18 - 3 = \blacksquare$

Introducing Area

Find the area of each figure.

 = one square unit



Area:



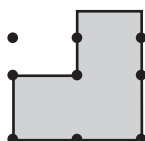
Area:



Area:



Area:



Area:



Area:



Area:



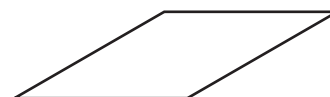
Area:



Area:

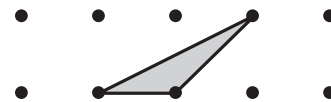
Test Prep

- 1 How many lines of symmetry does this figure appear to have? Explain how you found your answer.

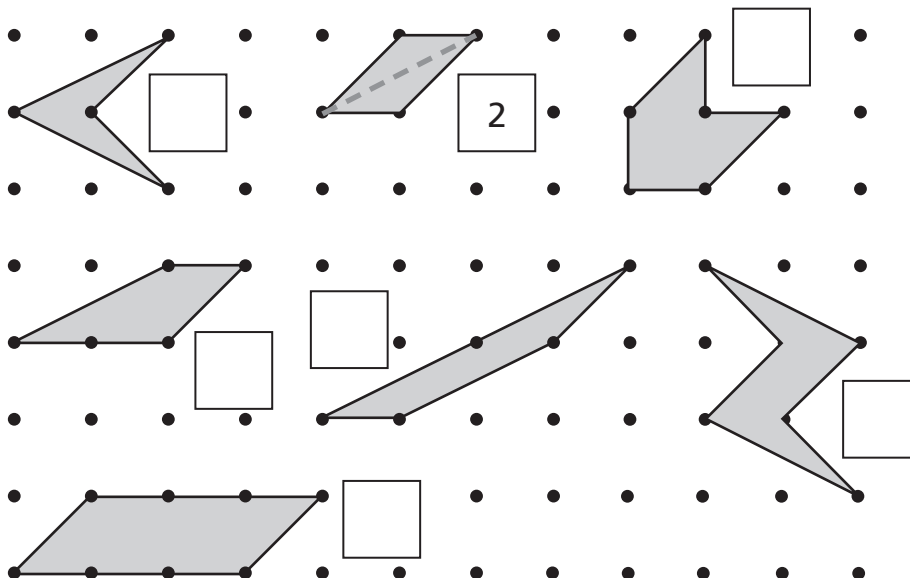


Assembling Congruent Figures to Find Area

- 1 Make a copy of the triangle. Cut it out. Use it, if you wish, to complete the rest of the problem.

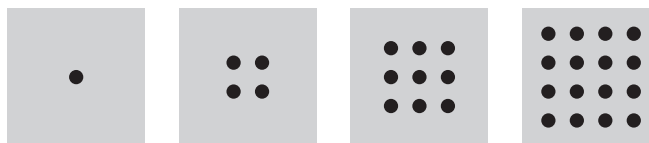


Draw lines to show how many copies of this triangle it would take to cover each of the figures below.



Test Prep

- 2 These are the first 4 cards in a pattern:



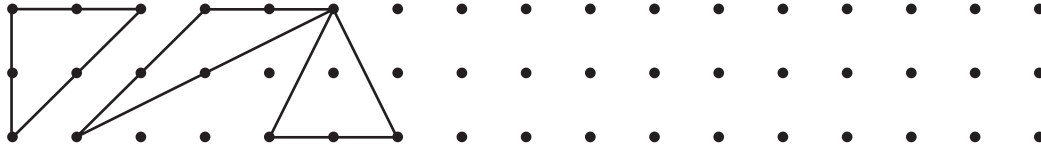
If the pattern continues this way, how many cards will have more than 50 but fewer than 100 dots? Explain how you found your answer.

Using Known Areas to Find Unknown Areas

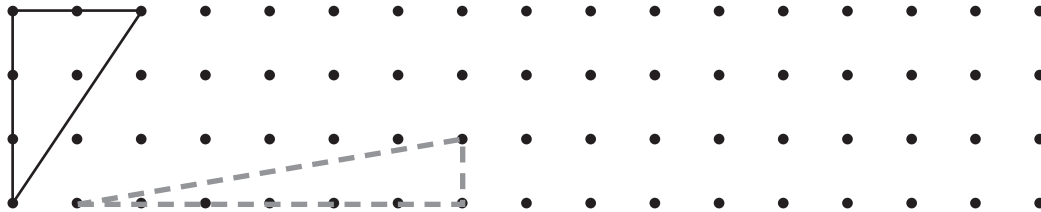


= one square unit

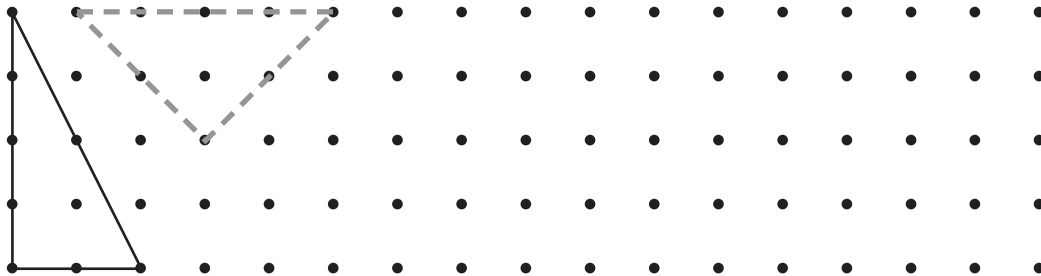
- 1 Each of these triangles has an area of _____ square units.
Draw 2 or 3 other triangles with the same area.



- 2 The area of the triangle below is _____ square units.
Draw some other triangles with the same area.



- 3 The area of the triangle below is _____ square units.
Draw some other triangles with the same area.



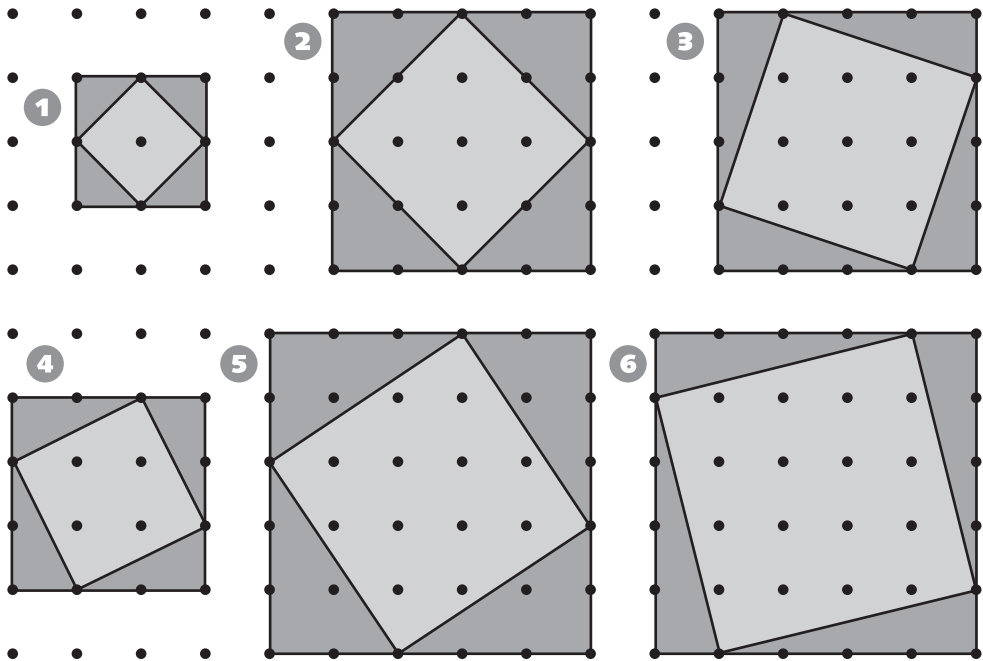
Test Prep

- 4 How many minutes are in 5 hours 38 minutes? Explain.

Introducing Standard Units for Measuring Area

Fill in the chart with the areas of the shaded, unshaded, and total parts in each figure.

 = one square unit



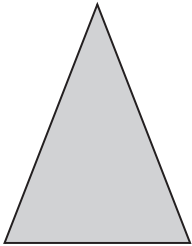
Area (square cm)	1	2	3	4	5	6
dark gray area	2					
light gray area	2					
Total	4					



Test Prep

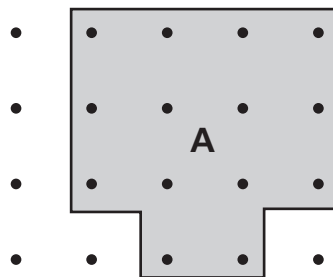
7 What type of triangle is shown here?

- A. right
- B. scalene
- C. isosceles
- D. equilateral



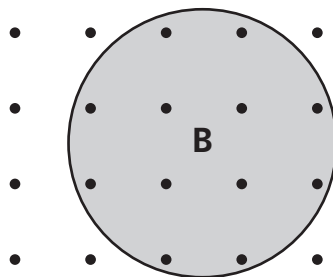
Estimating Area in Standard Units

- 1 Estimate the area of each figure in square centimeters.



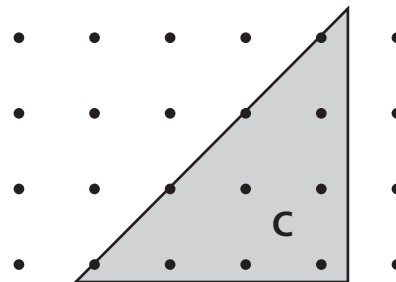
Area: about

_____ square cm



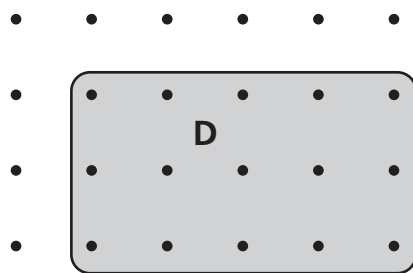
Area: about

_____ square cm

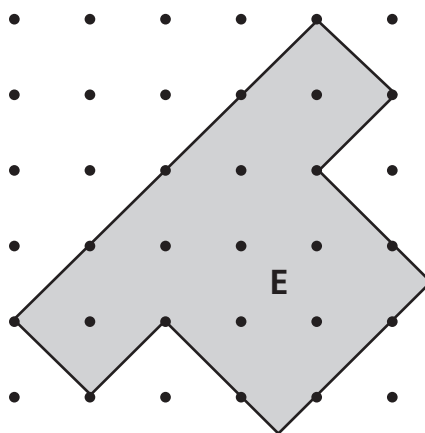


Area: about

_____ square cm



Area: about _____ square cm



Area: about _____ square cm

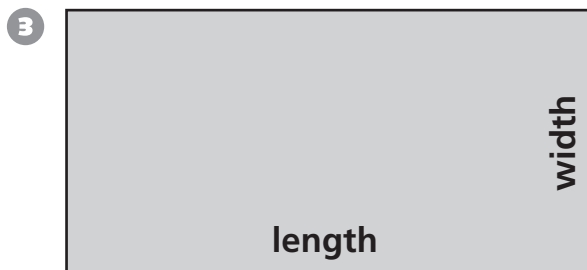
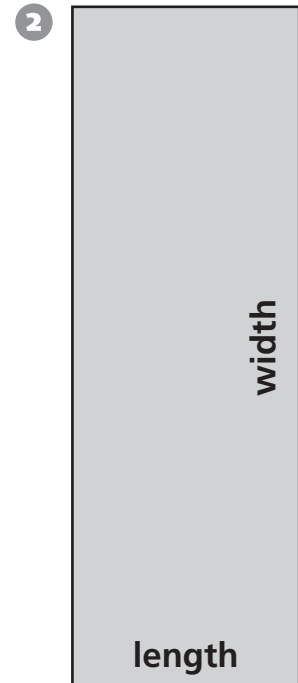
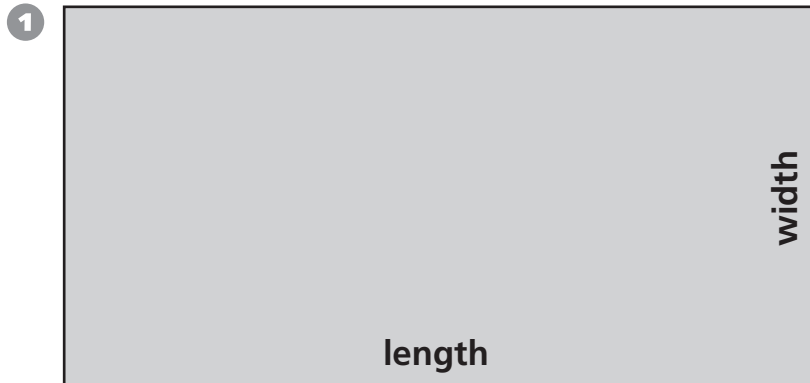


Test Prep

- 2 Sherry's basketball team has a 40-minute practice every other day. How many hours does the team practice in 12 days? Explain.

Introducing Perimeter

Measure the length and width of each rectangle.
Then find the perimeter.



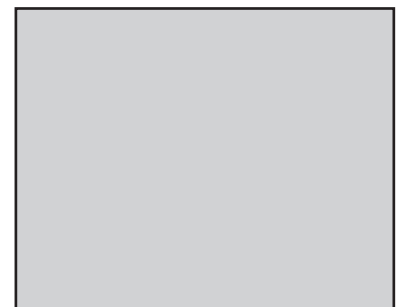
Rectangle	Length	Width	Perimeter
1	cm	cm	cm
2	cm	cm	cm
3	cm	cm	cm



Test Prep

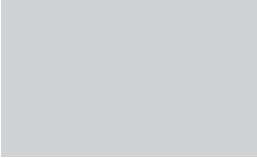

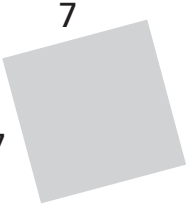

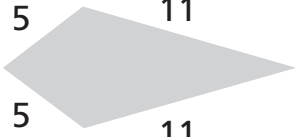
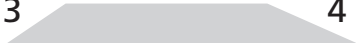
- 4 Maya made a quilt with pieces like this one. Measure the length and width of the piece to the nearest centimeter. What is the perimeter of the piece?

- A. 9 cm C. 18 cm
B. 10 cm D. 20 cm



Connecting Perimeter and Area

Find the perimeter of each quadrilateral.

<p>1</p>  <p>rectangle</p> <p>_____ units</p>	<p>2</p>  <p>parallelogram</p> <p>_____ units</p>	<p>3</p>  <p>square</p> <p>_____ units</p>
<p>4</p>  <p>rhombus</p> <p>_____ units</p>	<p>5</p>  <p>quadrilateral</p> <p>_____ units</p>	<p>6</p>  <p>trapezoid</p> <p>_____ units</p>

- 7 List the figures with two pairs of parallel sides. 1 _____
- 8 Which figure has exactly one pair of parallel sides? _____
- 9 List the figures with four equal sides. _____
- 10 List the figures with four right angles. _____
- 11 Which figure has four equal sides and four right angles? _____



Test Prep

- 12 Describe a scalene triangle. _____
- 13 Describe an isosceles triangle. _____
- 14 Describe an equilateral triangle. _____

Multiplication Puzzles

Complete each puzzle.

1

	9
×	
4	

2

	7
×	
3	

3

	6
×	
2	

4

	4
×	
	0

5

×	
2	5

6

	3
×	
	7

7

	8
×	
3	

8

	7
×	
	8

9

	8
×	
1	



Test Prep

- 10 Stan has an unusual weekly allowance plan. He receives **10¢** every Monday, **20¢** every Tuesday, **30¢** every Wednesday, and so on. That is, he always gets **10¢** on Mondays, and for the other days of the week, the next day's allowance is always **10¢** more than the day before.

If he begins counting on a Monday, how much total money will Stan receive after 10 days? Explain your answer.

Multiples of 10 and 100

① $2 \times 3 =$

$2 \times 30 =$

$20 \times 3 =$

$20 \times 30 =$

② $6 \times 8 =$

$6 \times 80 =$

$60 \times 8 =$

$60 \times 80 =$

③ $4 \times 8 =$

$4 \times 80 =$

$40 \times 8 =$

$40 \times 80 =$

④ $3 \times 4 =$

$30 \times 4 =$

$3 \times 40 =$

$30 \times 40 =$

⑤ $8 \times 9 =$

$8 \times 90 =$

$80 \times 90 =$

$80 \times 9 =$

⑥ $6 \times 9 =$

$60 \times 90 =$

$60 \times 9 =$

$6 \times 90 =$

⑦ $4 \times 6 =$

$4 \times 60 =$

$40 \times 60 =$

$40 \times 6 =$

⑧ $6 \times 7 =$

$6 \times 70 =$

$60 \times 7 =$

$60 \times 70 =$

⑨ $9 \times 7 =$

$90 \times 70 =$

$9 \times 70 =$

$90 \times 7 =$



Test Prep

- ⑩ What would be the 9th number in this sequence?

5, 10, 15, ...

- A. 35 C. 50
C. 45 D. 90

- ⑪ Ariel found that she walks 3 blocks in 8 minutes. How long will it take her to walk 9 blocks?

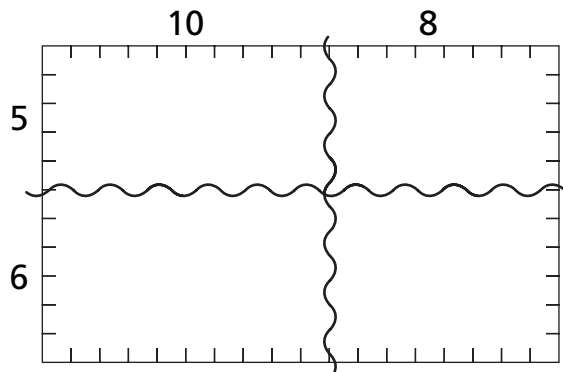
- A. 9 minutes C. 24 minutes
B. 18 minutes D. 27 minutes

Splitting Larger Arrays

Fill in the chart and find the number of squares in the array.

1

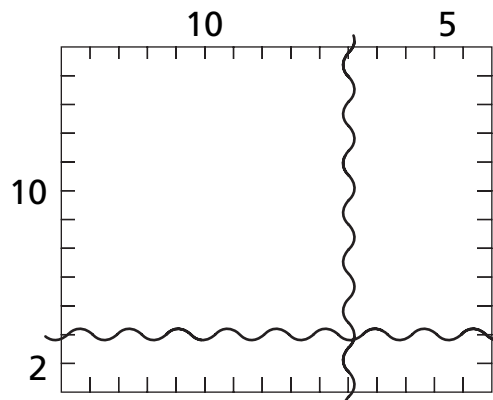
$$18 \times 11 = \boxed{}$$



×	10		18
6			
11			

2

$$12 \times 15 = \boxed{}$$



×	10	5	
10			
2			



Test Prep

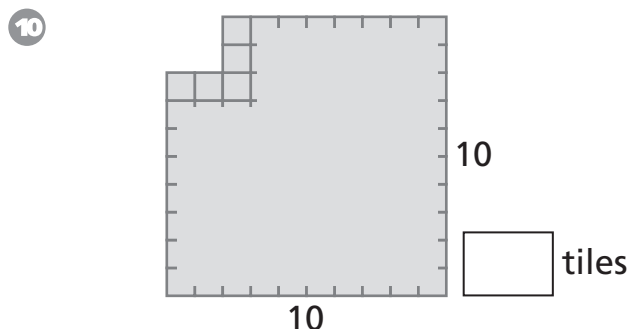
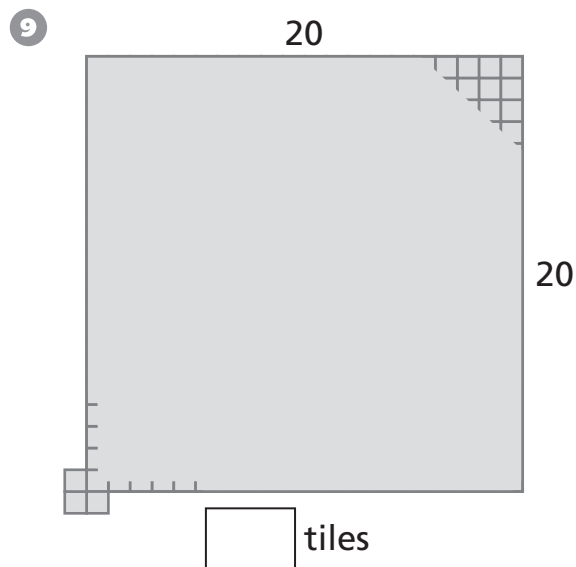
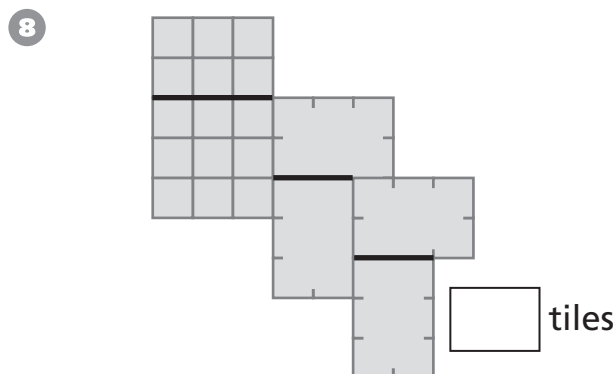
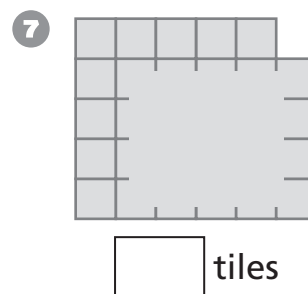
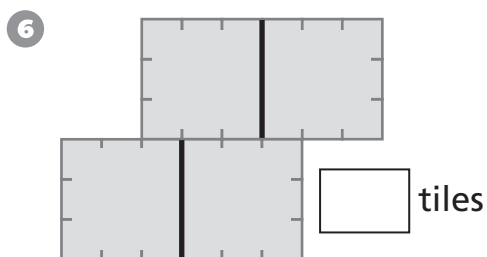
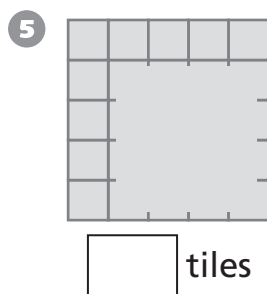
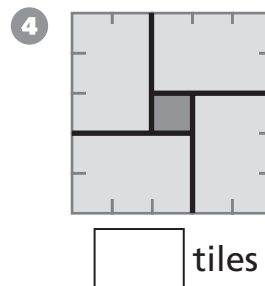
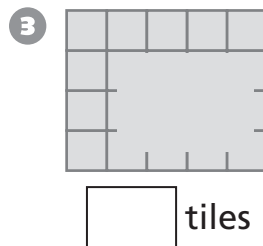
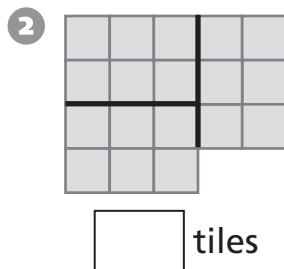
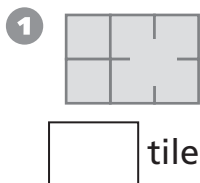
- 3 Eighth graders at Central School were surveyed to see how many took part in the activities shown at the right. Each student surveyed was involved in exactly two activities. These were the results.

How many students took part in the survey?
Explain your answer.

Band	
Chorus	
Orchestra	
School Play	

Choosing Simpler Problems

How many tiles  do you need to cover each design?



From Charts to Vertical Records

Find the products.

①

4	×	8	=	<input type="text"/>
4	×	80	=	<input type="text"/>
3	×	8	=	<input type="text"/>
30	×	8	=	<input type="text"/>
30	×	80	=	<input type="text"/>
34	×	80	=	<input type="text"/>

②

5	×	6	=	<input type="text"/>
5	×	60	=	<input type="text"/>
7	×	6	=	<input type="text"/>
70	×	6	=	<input type="text"/>
70	×	60	=	<input type="text"/>
75	×	60	=	<input type="text"/>

③

$19 \times 30 = \boxed{}$

	30		
10	$10 \times 30 = \boxed{}$		
9	$9 \times 30 = \boxed{}$		

×	30	
10		
9		
19		

×	30	
10		
9		
19		

×	30	
10		
9		
19		



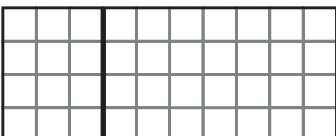
Test Prep

- ④ Thompson Elementary School has 25 desks in each classroom. The school has 1,625 students. Write a number sentence using n , so n equals the number of classrooms needed to seat every student. Explain your answer.

Recording Your Process of Multiplication

Fill in the missing numbers.

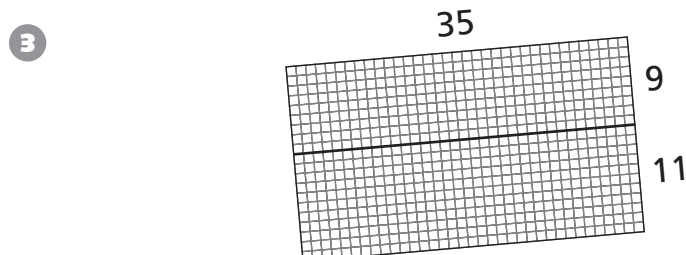
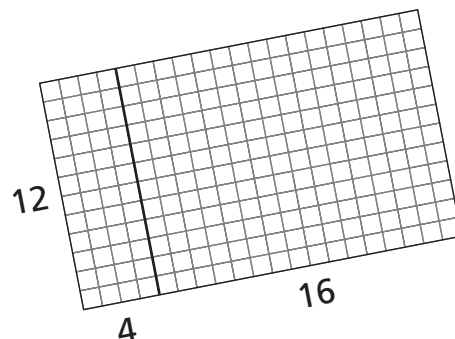
1



$$(3 \times 4) + (7 \times 4) = \square \times 4 = \square$$

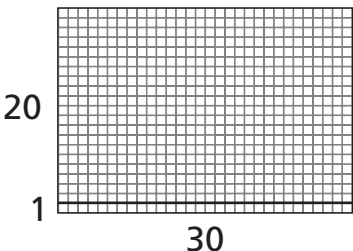
2

$$(12 \times 4) + (12 \times 16) = 12 \times \square = \square$$



$$(35 \times 9) + (35 \times 11) = 35 \times \square = \square$$

4



$$21 \times 30 = (20 \times 30) + (\square \times 30) =$$

$$\square + \square = \square$$


Test Prep

- 5 How many **2 digit** numbers can you make using any of these cards

1	2	3	4	5	6
---	---	---	---	---	---

for the tens digit and any of these cards for the ones digit?

0	1	2	3	4
---	---	---	---	---

- A. 24 numbers
B. 25 numbers
C. 30 numbers
D. 36 numbers

Checking for Reasonable Answers

Complete the multiplication sentences. Fill in the grids if needed.

$30 \times 30 = \boxed{}$

$29 \times 31 = \boxed{}$

	2	9
×	3	1

$40 \times 40 = \boxed{}$

$39 \times 41 = \boxed{}$

	3	9
×	4	1

$49 \times 49 = \boxed{}$

$48 \times 50 = \boxed{}$

	4	9
×	4	9



Test Prep

Which two statements are correct?

1. $72 \div 8 = 7$ 2. $72 \div 8 > 7$

3. $56 \div 7 < 7$ 4. $56 > 7 \times 7$

A. 1 and 3

C. 1 and 2

B. 2 and 4

D. 3 and 4

Which is not a way to have \$1.19 in change?

A. 4 quarters 3 nickels 4 pennies

B. 4 quarters 2 dimes 4 pennies

C. 4 quarters 1 dime 9 pennies

D. 3 quarters 4 dimes 4 pennies

Multiplication Situations

- 1** Ryan is trying to remember the 3-digit combination to his locker. He remembers that 6 is the first digit, but he can't remember the second digit. He remembers that the third digit is an odd number. What is the greatest number of combinations Ryan might have to try before being able to open his locker? _____ combinations

2

		4	8
		2	7

×

← 40×20

← 40×7

← 8×20

← 8×7

→ 20×40

→ 7×40

→ 20×8

→ 7×8

		2	7
		4	8

×

- 3** Use estimation to match the problems with the answers.

36×6

1,836

306×6

156

36×36

10,656

13×12

216

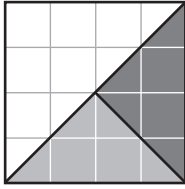
96×111




1,296

Exploring Fractions

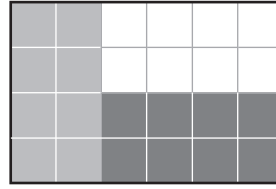
Write fractions that name the indicated portions of each picture.




1



		
$\frac{1}{2}$		

2



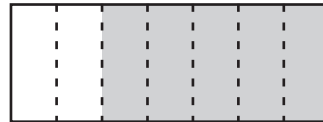
		

3



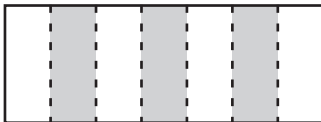
Shaded	
Unshaded	

4



Shaded	
Unshaded	

5



Shaded	
Unshaded	

6

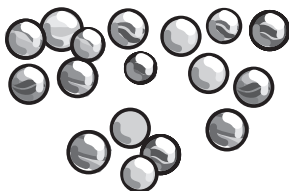


Shaded	
Unshaded	



Test Prep

- 7 Some children divided 18 marbles equally. Each child got more than 1 marble, and there were 4 left over. How many children were there? Explain.

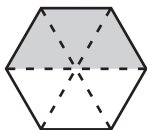


Exploring Fractions Greater than 1

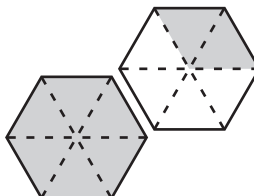
For the problems on this page,  is 1.

Find the fraction of a hexagon that's shaded.

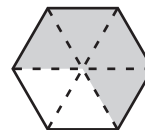
1



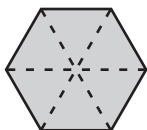
2



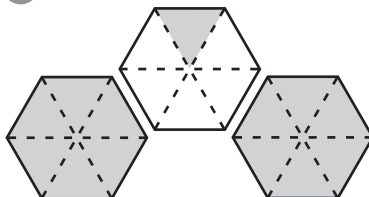
3



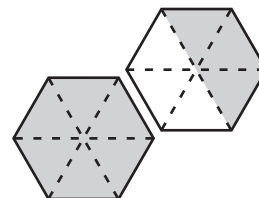
4



5



6



Test Prep

- 7 Which shape is exactly $\frac{1}{3}$ of the size of  ?



- 8 Sandra used a rule to make this list of numbers.

1, 2, 5, 10, 17, ■

What number comes next?

A. 20

C. 26

B. 24

D. 34

Exploring Fractions with Cuisenaire® Rods

Use Cuisenaire® Rods to answer these questions.

1 If the W cube is 1, then the R rod is _____.

2 If the G rod is 1, then the R rod is _____.

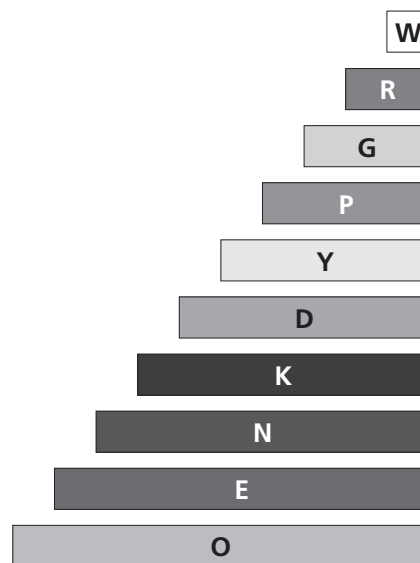
3 If the R rod is 1, then the W cube is _____.

4 If the W cube is 1, then the O rod is _____.

5 If the R rod is 1, then the Y rod is _____.

6 If the O rod is 1, then the Y rod is _____.

7 If the G rod is 1, then the K rod is _____.



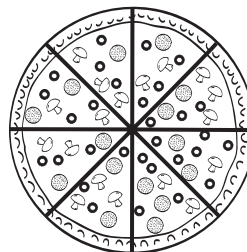
Test Prep

- 8 Tom bought 3 CDs. Each CD cost \$17.99 including tax. Which is the best estimate for the cost of the CDs?

A. \$30
B. \$45
C. \$60
D. \$80

- 9 Evan's family ate $\frac{5}{8}$ of a pizza. How much of the pizza was left?

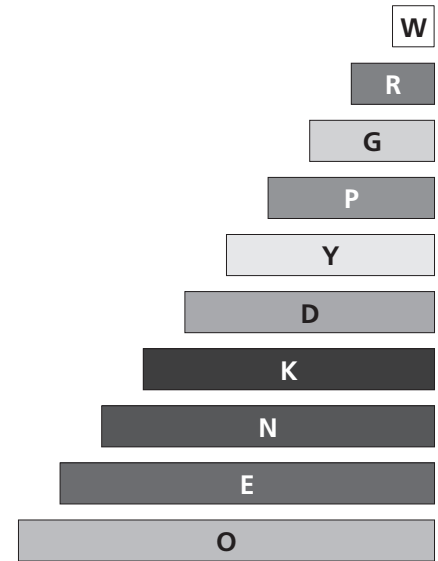
A. $\frac{1}{8}$
B. $\frac{2}{8}$
C. $\frac{3}{8}$
D. $\frac{5}{8}$



Reasoning About Cuisenaire® Rod Fractions

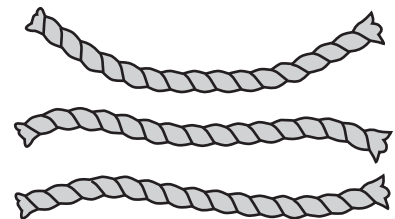
Use the Cuisenaire® Rods to complete the statements below.

- 1 Rod _____ is $\frac{1}{2}$ the length of rod R.
- 2 Rod G is $\frac{1}{2}$ the length of rod _____.
- 3 Rod _____ is $1\frac{1}{4}$ the length of rod P.
- 4 Rod O is $1\frac{1}{4}$ the length of rod _____.
- 5 Rod _____ is $1\frac{1}{2}$ the length of rod R.
- 6 Rod D is $1\frac{1}{2}$ the length of rod _____.
- 7 Rod _____ is $1\frac{2}{3}$ the length of rod G.



Test Prep

- 8 Jamie cut a 10-foot rope into 3 equal pieces. How long was each piece? Explain.



Fractions of a Foot

Find equivalent fractions to complete the patterns.

1

$\frac{1}{4}$	$\frac{2}{8}$	$\frac{3}{12}$	$\frac{4}{\quad}$	$\frac{\quad}{20}$	$\frac{\quad}{40}$	$\frac{25}{\quad}$	$\frac{\quad}{1,000}$
---------------	---------------	----------------	-------------------	--------------------	--------------------	--------------------	-----------------------

2

$\frac{2}{3}$	$\frac{\quad}{6}$	$\frac{6}{9}$	$\frac{20}{30}$	$\frac{\quad}{60}$	$\frac{\quad}{90}$	$\frac{400}{\quad}$	$\frac{\quad}{900}$
---------------	-------------------	---------------	-----------------	--------------------	--------------------	---------------------	---------------------

3

$\frac{5}{25}$	$\frac{1}{\quad}$	$\frac{10}{50}$	$\frac{25}{\quad}$	$\frac{\quad}{100}$	$\frac{15}{\quad}$	$\frac{6}{\quad}$	$\frac{60}{\quad}$
----------------	-------------------	-----------------	--------------------	---------------------	--------------------	-------------------	--------------------



Test Prep

- 4** A dozen can be evenly divided by 2 or 3 or 4, but not by 5.

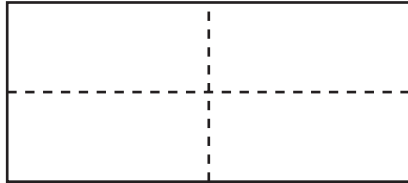
Is the same statement true about 5 dozen? Explain.

- 5** Morgan reads 4 pages in 10 minutes. How many pages can she read in 15 minutes? Explain.

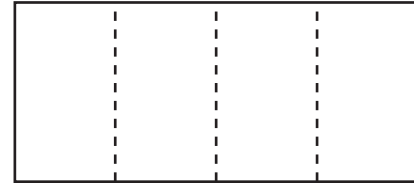
Comparing Fractions with One Half

Shade $\frac{1}{2}$ of each picture.

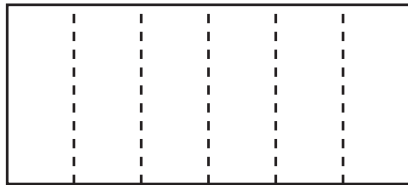
1



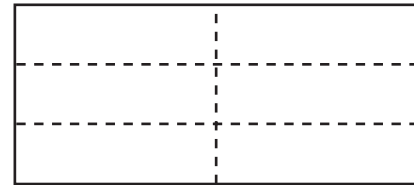
2



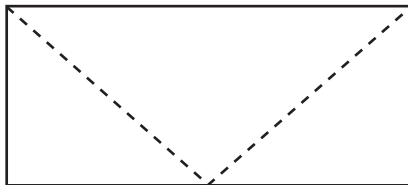
3



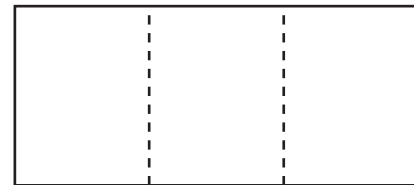
4



5

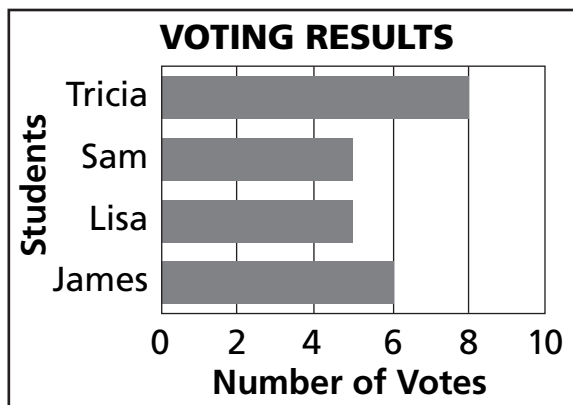


6



Test Prep

- 7 Ms. Lewis's class voted for a class president. The graph shows the results.



How many students voted? _____

How many students voted for Tricia? _____

How many students did not vote for Tricia? _____

What fraction of the students voted for Tricia? _____

What fraction of the students did not vote for Tricia? _____

Comparing Fractions

1

**1 dollar = 100¢** $\frac{1}{10}$ of a dollar = _____¢ $\frac{2}{10}$ of a dollar = _____¢ $\frac{5}{10}$ of a dollar = _____¢ $\frac{9}{10}$ of a dollar = _____¢ $\frac{10}{10}$ of a dollar = _____¢ $\frac{13}{10}$ of a dollar = _____¢

2

**1 hour = 60 minutes** $\frac{1}{6}$ of an hour = _____ minutes $\frac{2}{6}$ of an hour = _____ minutes $\frac{3}{6}$ of an hour = _____ minutes $\frac{5}{6}$ of an hour = _____ minutes $\frac{6}{6}$ of an hour = _____ minutes $\frac{8}{6}$ of an hour = _____ minutes

Test Prep

- 3 Which number(s) can the triangle stand for to make the number sentence true?

$$6 \times \triangle = \triangle \times 6$$

- A. 0 only
- B. 1 only
- C. 0 or 1 only
- D. all numbers

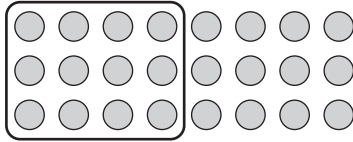
- 4 Susan read for $\frac{3}{4}$ of an hour. She began at 4:10. When did she stop?

- A. 5:00
- B. 4:55
- C. 4:45
- D. 4:40

Finding Equivalent Fractions

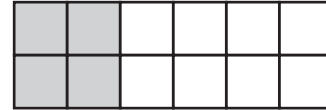
Cross out the fraction that is NOT equivalent to the others.

1



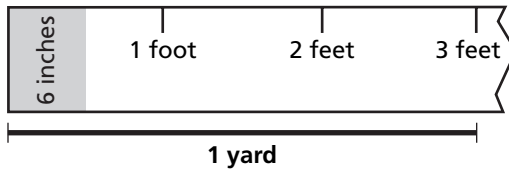
$$\frac{12}{24} \quad \frac{1}{2} \quad \frac{4}{8} \quad \cancel{\frac{3}{4}}$$

2



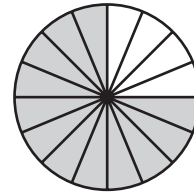
$$\frac{1}{2} \quad \frac{4}{12} \quad \frac{1}{3} \quad \frac{2}{6}$$

3



$$\frac{1}{6} \quad \frac{6}{36} \quad \frac{2}{12} \quad \frac{1}{3}$$

4



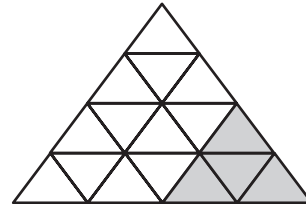
$$\frac{4}{12} \quad \frac{3}{4} \quad \frac{12}{16} \quad \frac{6}{8}$$

5



$$\frac{1}{5} \quad \frac{20}{50} \quad \frac{2}{5} \quad \frac{4}{10}$$

6



$$\frac{1}{3} \quad \frac{1}{4} \quad \frac{4}{16} \quad \frac{2}{8}$$



Test Prep

Terry took half and Seth took a fourth of all the marbles that were in their toy box.

7 How many marbles were left?

- A. $\frac{1}{4}$ of the original number
- B. $\frac{1}{3}$ of the original number
- C. $\frac{2}{3}$ of the original number
- D. $\frac{3}{4}$ of the original number

8 How many marbles could there have been in the box to start with?

- A. 9 marbles
- B. 10 marbles
- C. 11 marbles
- D. 12 marbles

Making Equivalent Fractions

Cross out the fraction that is NOT equivalent to the others.

1

W	W	W	W
R		R	
P			

$$\frac{1}{2} \quad \frac{2}{4} \quad \frac{3}{6} \quad \frac{4}{10}$$

2

W	W	W	W	W	W
R		R		R	
D					

$$\frac{2}{6} \quad \frac{4}{6} \quad \frac{2}{3} \quad \frac{8}{12}$$

3

W	W	W	W	W	W	W	W	W
R		R		R		R		W
G			G			G		
E								

$$\frac{1}{3} \quad \frac{3}{5} \quad \frac{3}{9} \quad \frac{2}{6}$$

4

W	W	W	W	W	W	W	W
R		R		R		R	
P				P			
N							

$$\frac{1}{2} \quad \frac{3}{4} \quad \frac{12}{16} \quad \frac{6}{8}$$

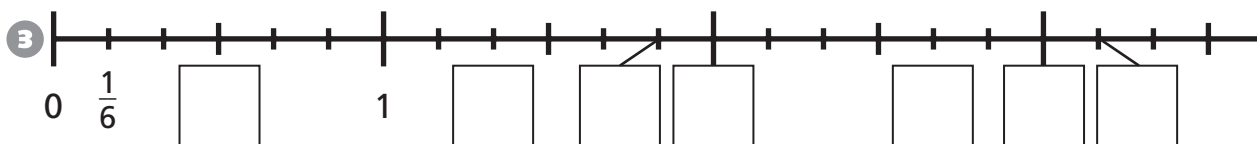
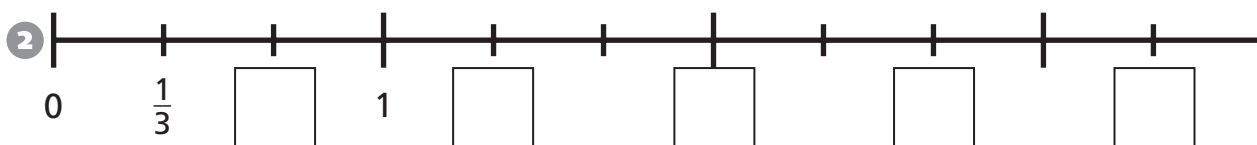
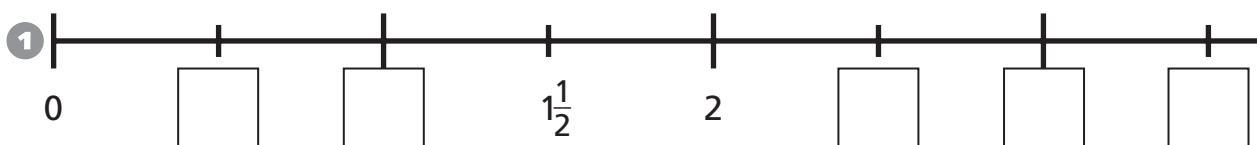
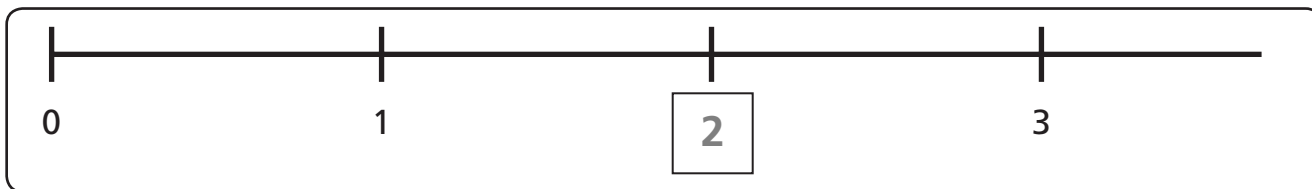


Test Prep

- 5** Some kids did yard work for a neighbor. They earned \$9.00 and divided the money evenly. If there were 4 kids, how much did each get? Explain.

Fractions in Measurement

Write the missing numbers.



4 $\frac{1}{2} = \frac{\boxed{}}{4}$

5 $1\frac{1}{3} = 1\frac{\boxed{}}{6}$

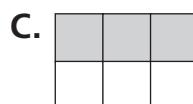
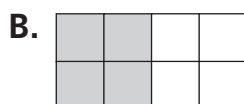
6 $\frac{3}{6} = \frac{1}{\boxed{}}$



Test Prep

7 A fraction of this group of circles is shaded:

Which figure below represents a fraction with the same value?



Modeling Addition of Fractions

1

2 fourths + 1 fourth = _____ fourths

2

5 sixths - 2 sixths = _____ sixths

3

2 fifths + 3 fifths = _____ fifths

4

1 third + 3 thirds = _____ thirds

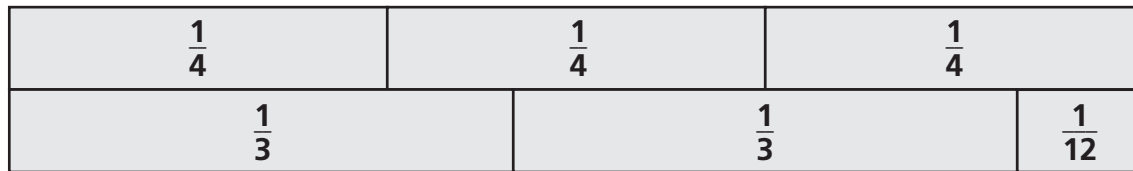
5

$$\frac{1}{6} + \frac{3}{6} = \frac{\boxed{}}{6}$$

6

$$\frac{5}{8} + \frac{2}{8} = \frac{\boxed{}}{\boxed{}}$$

7



$$\frac{2}{3} + \frac{1}{12} = \frac{\boxed{}}{\boxed{}}$$



Test Prep

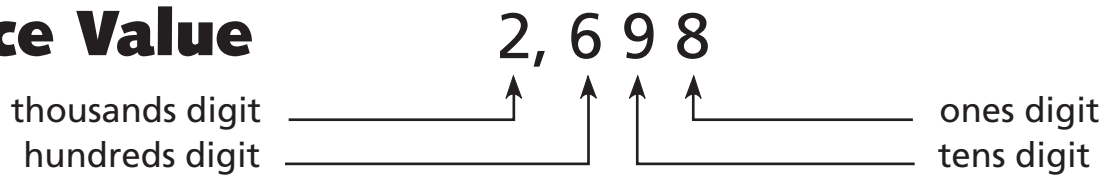
- 8 There are four cups with pencils in them.



Kyle moved pencils so that each cup contained the same number. How many were in each cup? Explain.

- 9 Alex had 7 marbles. He and Greg combined their marbles, then shared them evenly. If both then had 5 marbles, how many did Greg start with? Explain.

Place Value



Solve the riddles.

- 1** • My number has 3 digits.
• The ones digit is odd.
• My number is a multiple of 5.
• The hundreds digit is one less than the tens digit.
• The number is less than 200.

What is my number?

1		
---	--	--

- 2** • My number has 4 digits.
• If you wrote the number backwards, it would still be the same number.
• The thousands digit is 8.
• One of the digits is 0.

What is my number?

--	--	--	--

- 3** • My number has 3 digits.
• All of the digits are even.
• The number is larger than 600 and smaller than 700.
• The sum of the digits is 14.
• The tens digit is 0.

What is my number?

--	--	--

- 4** • My number has 3 digits.
• All of the digits are different.
• Each digit is a multiple of 3.
• None of the digits is 0.
• The number is greater than 900.
• The tens digit is greater than the ones digit.

What is my number?

--	--	--



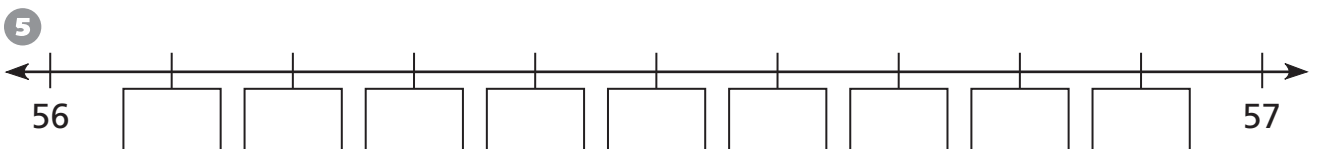
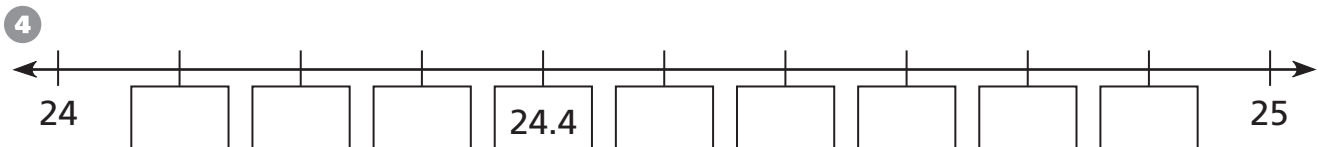
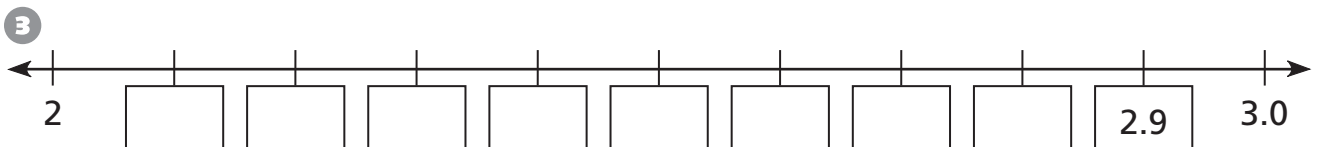
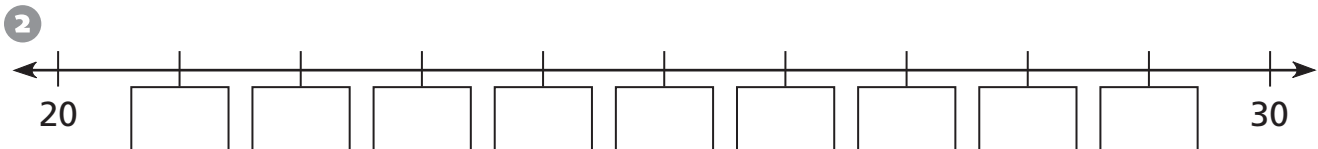
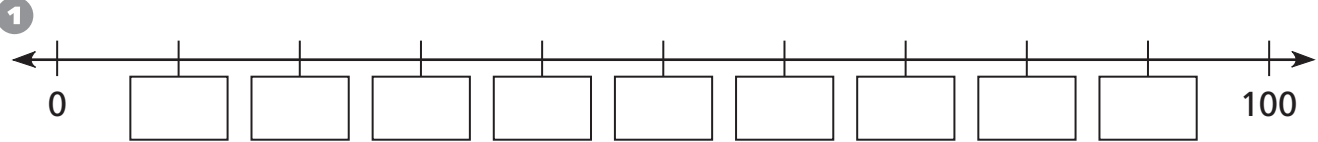
Test Prep

- 5** 8,620,013 is written as:

- A. eighty-six thousand, two hundred thirteen
B. eight million, six hundred twenty thousand, thirteen
C. eight million, sixty-two thousand, thirteen
D. eight million, six hundred twenty thousand, one hundred three

Introducing Decimals

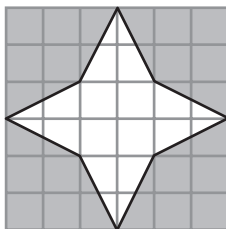
Fill in the missing numbers.



Test Prep

- 6 The picture shows a square that Amy made for her quilt.

How many lines of symmetry does Amy's quilt square have?



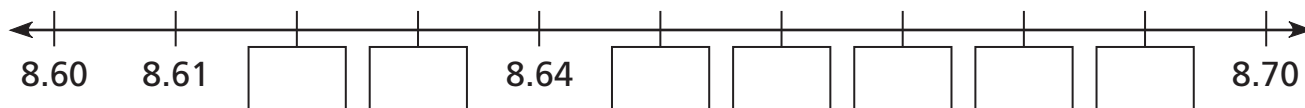
- A. 0 C. 4
B. 2 D. 8

- 7 Which fraction is NOT equivalent to the white portion of the quilt square?

- A. $\frac{1}{3}$ C. $\frac{1}{4}$
B. $\frac{12}{36}$ D. $\frac{3}{9}$

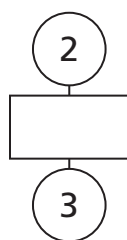
Zooming in on the Number Line

1 Fill in the missing numbers on the number line.

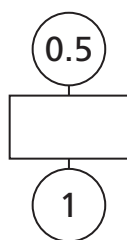


Write a number that is between the two numbers.

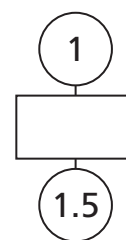
2



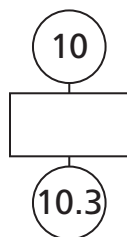
3



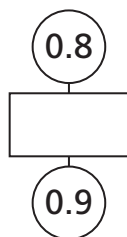
4



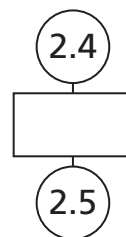
5



6

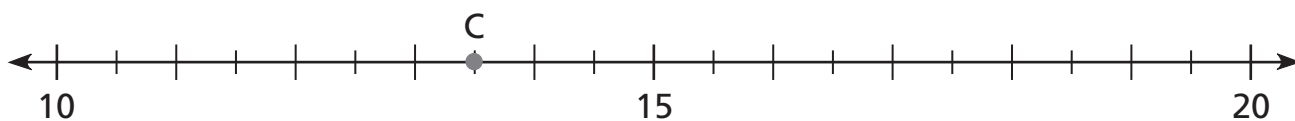


7



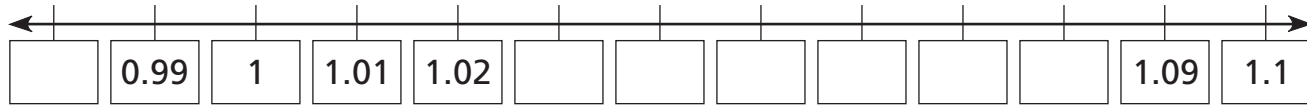
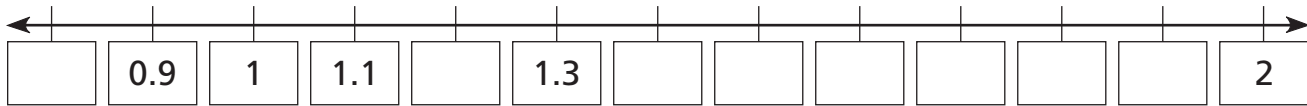
Test Prep

8 What number is represented by point C?
Explain your reasoning.



Decimals on the Number Line

1 Fill in the missing numbers.



Use the number lines above to compare the numbers. Write $<$ or $>$.

2 $0.9 \bigcirc 1$

3 $1 \bigcirc .99$

4 $1 \bigcirc 1.01$

5 $0.9 \bigcirc 1.1$

6 $1.01 \bigcirc 1.1$

7 $1.1 \bigcirc 1.11$

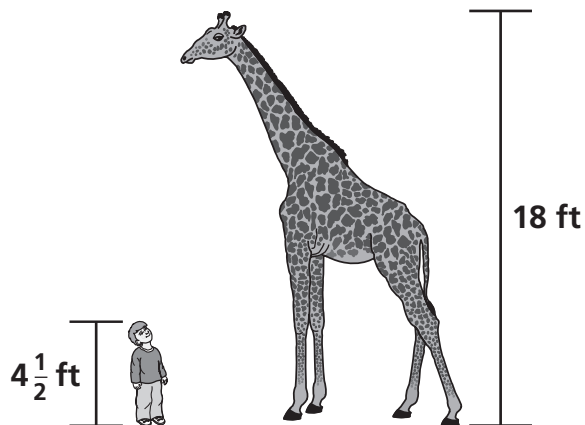
8 $0.9 \bigcirc 0.8$

9 $1.01 \bigcirc 1.11$

10 $1.1 \bigcirc 1.09$

Test Prep

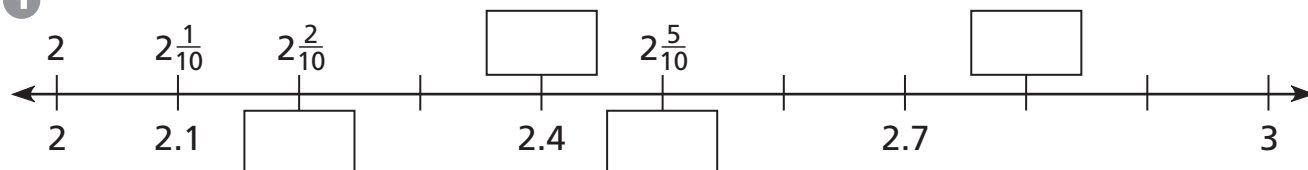
- 11 When Sean visited the zoo, he saw a giraffe that was 18 feet tall. Sean is $4\frac{1}{2}$ feet tall. How many times as tall as Sean was the giraffe? Explain your reasoning.



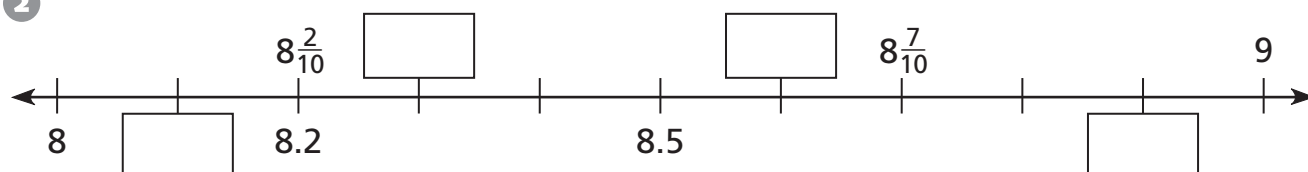
Connecting Fractions and Decimals

Fill in the boxes with the missing fractions or decimals.

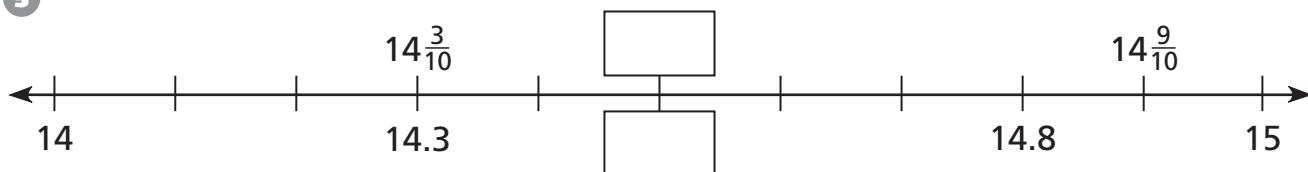
1



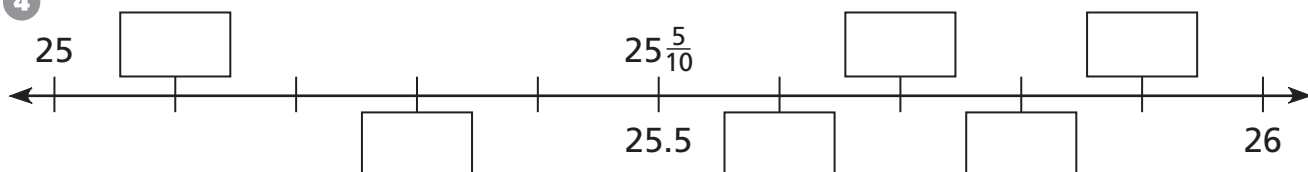
2



3



4



Test Prep

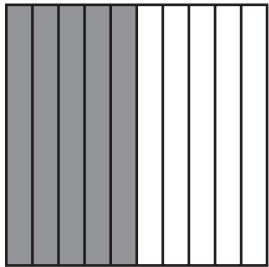
- 5 Each of five friends has between \$3.50 and \$4.25. Which could be the total amount of money the five friends have?

- A. \$11.28 C. \$17.80
B. \$13.99 D. \$22.20

Representing Decimals Using a Grid

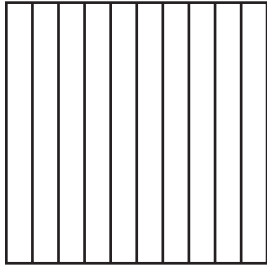
Shade each diagram to match the number below it.

1



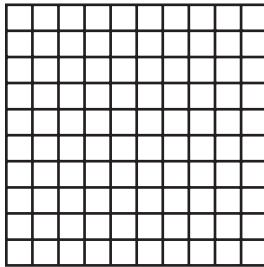
0.5

2



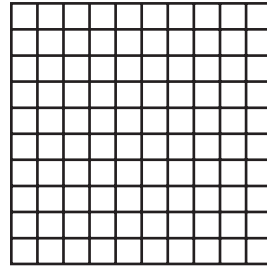
0.8

3



0.18

4



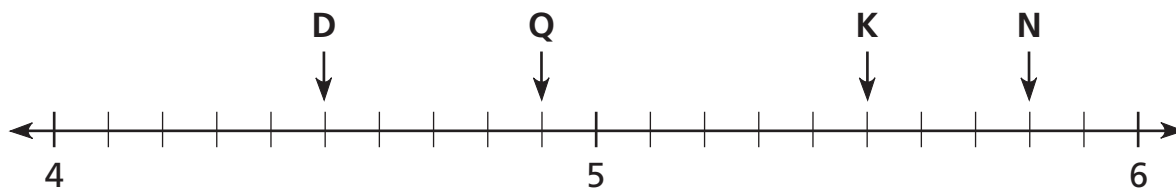
0.65

5 Use the diagrams above to compare the decimals. Write $<$ or $>$.

0.5 $<$ 0.60.5 \bigcirc 0.520.18 \bigcirc 0.50.8 \bigcirc 0.10.1 \bigcirc 0.180.8 \bigcirc 0.520.65 \bigcirc 0.520.83 \bigcirc 0.80.6 \bigcirc 0.830.18 \bigcirc 0.830.6 \bigcirc 0.650.1 \bigcirc 0.65

Test Prep

6 Which arrow on the number line is closest to 5.4?



A. D

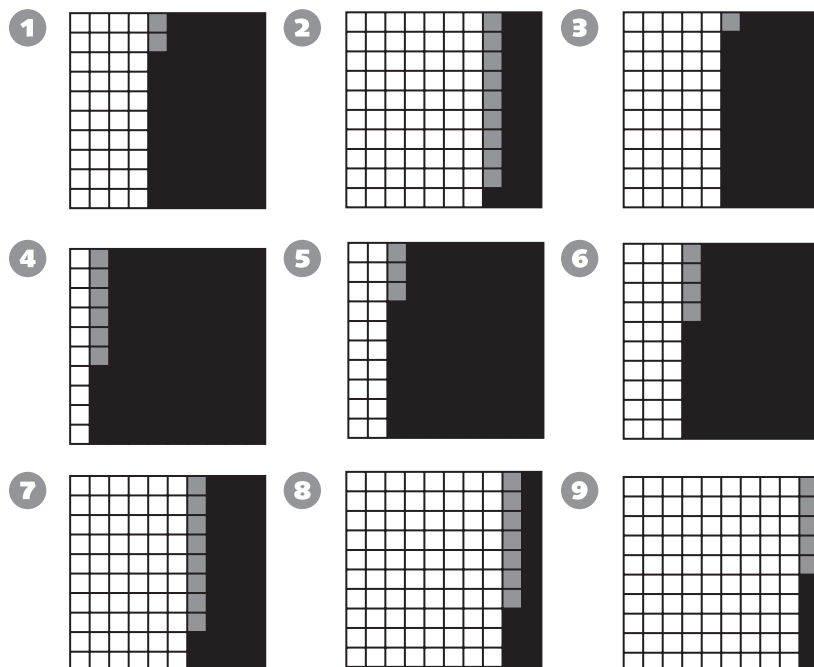
C. K

B. Q

D. N

Representing Decimals Using Base-Ten Blocks

Complete the table to match the diagrams.



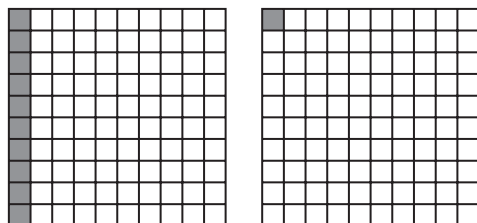
	White + Gray = Total		
1	0.4	0.02	0.42
2	0.7		
3			
4			
5			
6			
7			
8			
9			

- 10 Write the numbers from the "Total" column in order from smallest to largest.



Test Prep

- 11 Which of the following is a true statement?



- A. $0.1 < 0.01$ C. $0.01 = 0.1$
 B. $0.01 > 0.1$ D. $0.1 > 0.01$

- 12 Jadzia had \$1.86 in her pocket. Then she found a quarter. How much money did she have in all?

- A. \$1.36 C. \$2.11
 B. \$1.61 D. \$2.36

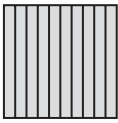
Adding Decimals

Compare. Write $<$, $>$, or $=$.

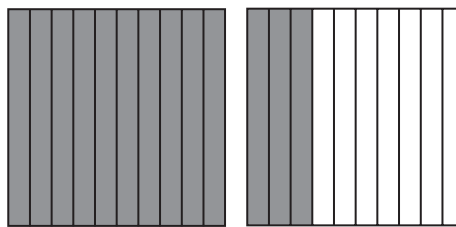
1 $1.34 \bigcirc 1.4$	2 $0.6 + 0.5 \bigcirc 1$	3 $1.3 + 0.07 \bigcirc 1.6 + 0.04$
4 $0.08 \bigcirc 0.3$	5 $0.3 + 0.6 \bigcirc 1$	6 $2.6 + 0.01 \bigcirc 2.6 + 0.05$
7 $0.4 \bigcirc 0.40$	8 $0.92 + 0.37 \bigcirc 1$	9 $3.8 + 0.02 \bigcirc 1.8 + 0.02$
10 $0.61 \bigcirc 0.9$	11 $0.29 + 0.18 \bigcirc 1$	12 $1.7 + 0.05 \bigcirc 1.9 + 0.04$
13 $0.95 \bigcirc 1.06$	14 $0.38 + 0.62 \bigcirc 1$	15 $0.9 + 0.08 \bigcirc 3.1 + 0.06$
16 $2.70 \bigcirc 2.7$	17 $0.59 + 0.54 \bigcirc 1$	18 $0.3 + 0.04 \bigcirc 0.2 + 0.14$
19 $0.88 \bigcirc 1.3$	20 $0.72 + 0.16 \bigcirc 1$	21 $0.6 + 0.09 \bigcirc 0.3 + 0.07$



Test Prep

- 22** If  is worth 1, which decimal is represented by the model?

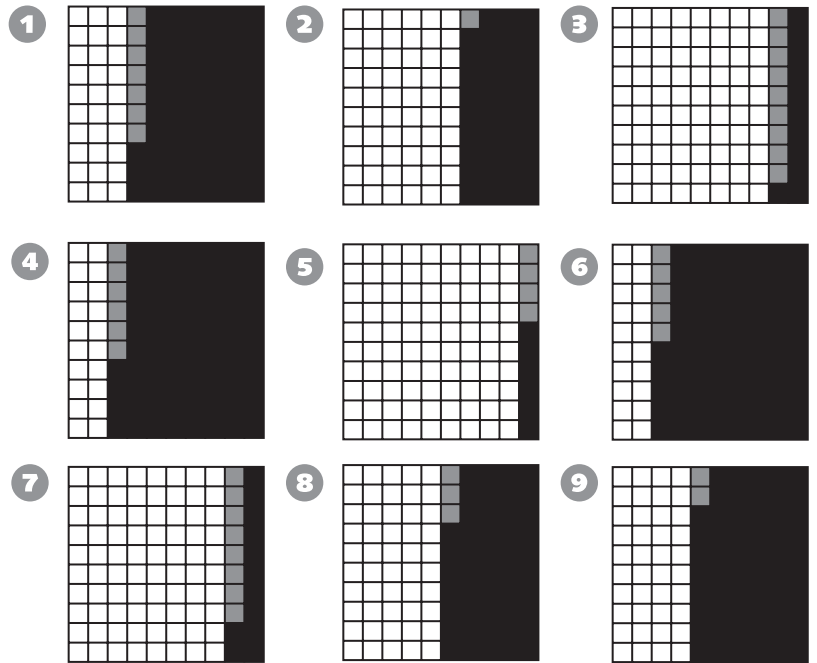
Explain your reasoning.



Subtracting Decimals

Complete the table. You might use the grids to help you find the differences.

	Total	– Gray	= White
1	0.37	0.07	0.30
2	0.61	0.01	
3	0.89	0.09	
4	0.26	0.06	
5	0.94	0.04	
6	0.25	0.05	
7	0.88	0.08	
8	0.53	0.03	
9	0.42	0.02	



- 10 Write the numbers from the “Total” column in order from smallest to largest.



Test Prep

- 11 $\frac{1}{2}$ of a dollar is \$0.50.
How much is $\frac{3}{4}$ of a dollar?
Explain your reasoning.



Representing Decimals Using Money

Watch the signs!

$$\begin{array}{r} \textcircled{1} \quad 23.78 \\ - 9.81 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 8.92 \\ + 3.45 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 2.4 \\ - 0.75 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 3.07 \\ - 1.82 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 26.32 \\ + 19.64 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 3.6 \\ - 1.43 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad 4.19 \\ + 2.80 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad 5.27 \\ + 6.08 \\ \hline \square \end{array}$$

$$\begin{array}{r} \textcircled{9} \quad 2.83 \\ + \square \\ \hline 2.89 \end{array}$$

$$\begin{array}{r} \textcircled{10} \quad 4.31 \\ - \square \\ \hline 4.27 \end{array}$$

$$\begin{array}{r} \textcircled{11} \quad 5.48 \\ - \square \\ \hline 5.06 \end{array}$$

$$\begin{array}{r} \textcircled{12} \quad 1.96 \\ + \square \\ \hline 2.03 \end{array}$$

$$\begin{array}{r} \textcircled{13} \quad 1.24 \\ - \square \\ \hline 1.2 \end{array}$$

$$\begin{array}{r} \textcircled{14} \quad 3.14 \\ + \square \\ \hline 3.54 \end{array}$$

$$\begin{array}{r} \textcircled{15} \quad 2.22 \\ - \square \\ \hline 1.92 \end{array}$$

$$\begin{array}{r} \textcircled{16} \quad 0.68 \\ + \square \\ \hline 0.7 \end{array}$$

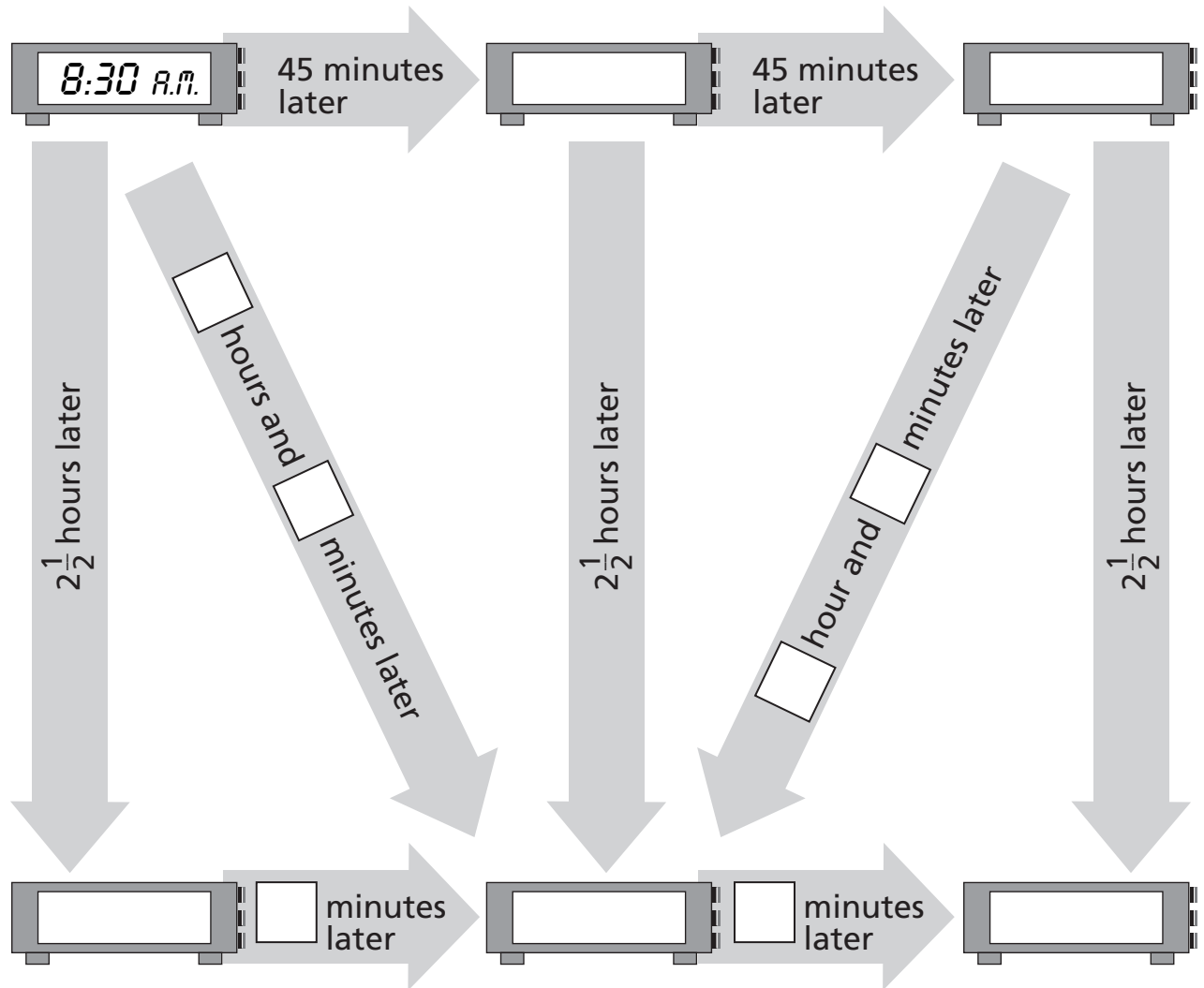


Test Prep

- 17** Bryanna's family bought two packages of ground beef. One package weighed 0.68 lbs. The other package weighed 1.32 lbs. If ground beef cost \$2.50 a pound, what was the total cost? Explain.

Computing with Time and Money

1 Follow the arrows. Fill in the missing times.

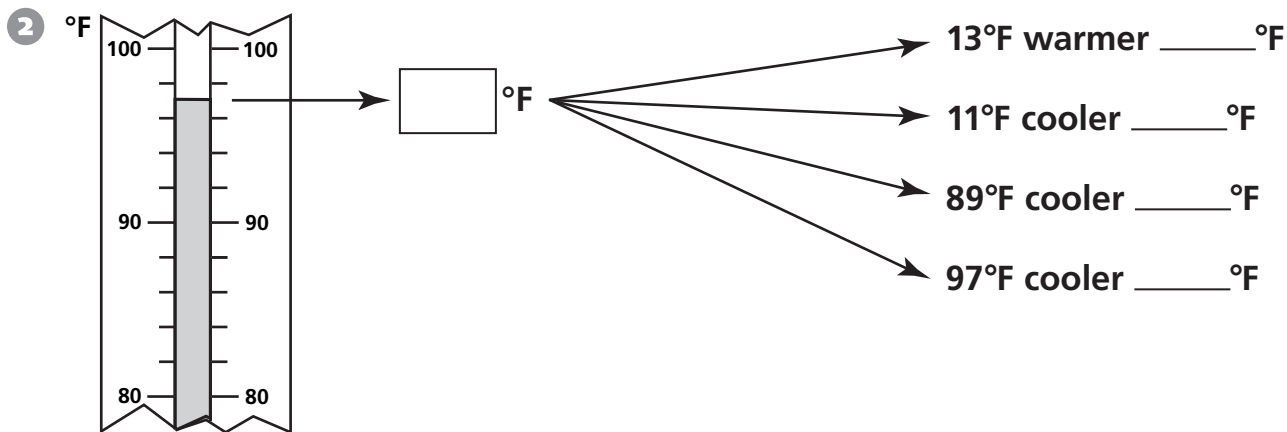
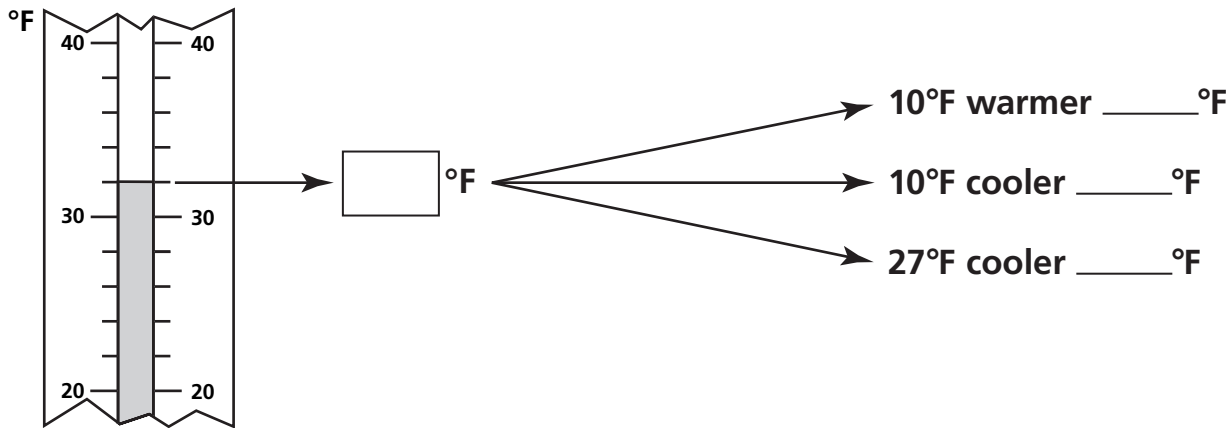


Test Prep

- 2 If 2 textbooks are 3 inches wide when put together, how many textbooks can be placed on a shelf 1 foot 6 inches wide? Explain how you found the number of textbooks.

Measuring Temperature

- 1 Record the temperature on each thermometer and use it to help you find the other temperatures.



Test Prep

- 3 Ralph bought four 39¢ stamps and some 24¢ stamps. He spent \$3.00 total. How many 24¢ stamps did he buy?
- A. 4 C. 6
- B. 5 D. 12
- 4 How can you find the perimeter of a triangle?
- _____
- _____
- _____

Measuring Length

Use a ruler to measure these lines to the nearest half inch.

1  inches

2  inches

3  inches

4  inch

5  inches



Test Prep

Mr. Jones has fewer than 38 coins in his collection. He divides his coins evenly among his 6 children and has 4 coins left over.

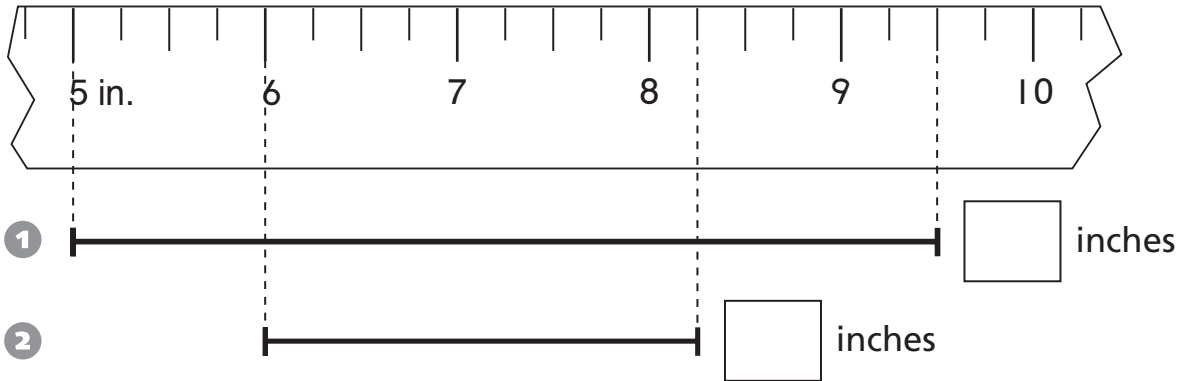
6 What is the greatest number of coins he could have?

- A. 28
- B. 30
- C. 32
- D. 34

7 What is the greatest number of coins each of his 6 children could have? Explain.

Measuring in Inches, Feet, and Yards

Measure the lengths.



Use one of the measurements listed to make each statement true.

3	1 ft	1 yd	6 in.	2 ft	7 in.	19 in.	18 in.
---	------	------	-------	------	-------	--------	--------

_____ = 12 inches 1 ft 6 in. = _____ _____ + 1 ft = 1 yd

_____ = 3 feet 3 in. + 4 in. = _____ _____ \times 2 = 1 ft

_____ = 36 inches 7 in. + 1 ft = _____ _____ \times 3 = 1 yd

_____ = 24 inches 18 in. \div 3 = _____ 6 in. + _____ = 2 ft



Test Prep

- 4 Eric has between 45 and 75 photos. When he puts them in groups of 2, 3, 4, 5, or 6, there are none left over. When he puts them in groups of 7, there are some left over. Find the number of photos Eric has. Show your reasoning.

Measuring Length in Centimeters

Estimate the length of the line. Remember that the red rod is 2 centimeters long. Then use a ruler to measure the length.

1

Hint: 6 red rods

Estimate: _____ cm Length: _____ cm

2

Estimate: _____ cm Length: _____ cm

3

Estimate: _____ cm Length: _____ cm

4

Estimate: _____ cm Length: _____ cm



Test Prep

- 5** The table shows how much money Michael had in his savings account for each of the last four weeks. If he continues to save the same amount each week, which number sentence tells how much he will have in week 7?

- A. $7 \times \$3 = \21 C. $\$12 + \$3 = \$15$
 B. $\$12 + \$12 = \$24$ D. $7 \times \$12 = \84

Week	Amount
1	\$3.00
2	\$6.00
3	\$9.00
4	\$12.00

Measuring Capacity in Cups, Pints, and Quarts

Fill in the missing amounts.

1

2 years	+	3 years	=	_____ years
24 months	+	36 months	=	_____ months

2

1 quart	+	2 quarts	=	3 quarts
4 cups	+	_____ cups	=	_____ cups

3

2 yards	+	6 yards	=	_____ yards
_____ feet	+	_____ feet	=	_____ feet

4

10 quarts	+	_____ quarts	=	19 quarts
_____ pints	+	_____ pints	=	_____ pints

5

3 feet	+	_____ yards	=	3 yards
_____ inches	+	_____ feet	=	_____ feet



Test Prep

6 Which expression does NOT have the same value as 36×42 ?

A. $(30 \times 42) + (6 \times 42)$

B. $(36 \times 40) + (36 \times 2)$

C. $(30 \times 40) + (6 \times 40) + (2 \times 30) + (6 \times 2)$

D. $(30 \times 40) + (6 \times 2)$

Measuring Capacity in Gallons and Liters

Fill in the missing amounts.

1

2 weeks	+	3 weeks	=	_____ weeks
14 days	+	21 days	=	_____ days

2

2 feet	+	3 feet	=	_____ feet
_____ inches	+	_____ inches	=	_____ inches

3

3 quarts	+	_____ quarts	=	15 quarts
6 pints	+	_____ pints	=	_____ pints

4

1 liter	+	3 liters	=	_____ liters
1,000 mL	+	_____ mL	=	_____ mL



Test Prep

- 5 Sarah drove 800 miles in 3 days. She drove 356 miles Monday and 284 miles Tuesday. How far did she drive Wednesday?

A. 160 miles C. 180 miles
B. 240 miles D. 640 miles

- 6 How many hours are in 4 days and 4 hours? Explain.

Computing Amounts of Liquid

1	Quarts	$\frac{1}{2}$	1	2	3	4	7			6	
	Pints		2					20			18
	Cups		4						20		

- 2 Karen drinks 6 cups of water a day. How many quarts does she drink?

_____ quarts

- 3 Michael needs 3 pints of juice to make punch. He has 9 cups of juice. Does he have enough?

yes no

- 4 John bought 4 quarts of milk at the store. He gave a cup to each of his 5 friends. How many cups does he have left?

_____ cups

- 5 Kelly had 4 pints of tomato juice, and then she bought another quart at the store. How much tomato juice does she have?

_____ pints or _____ quarts



Test Prep

- 6 Hallie has these cards.

8	6	4	1
---	---	---	---

How many different 4-digit numbers can she make?
Explain how she can be sure that she has included every possible number in her list.

Measuring Weight in Ounces, Pounds, and Tons

Fill in the missing amounts.

1	1 lb	+	2 lb	=	3 lb
	16 oz	+	32 oz	=	_____ oz

2	1 meter	+	4 meters	=	5 meters
	100 cm	+	_____ cm	=	_____ cm

3	4 tons	+	2 tons	=	_____ tons
	_____ pounds	+	4,000 pounds	=	_____ pounds

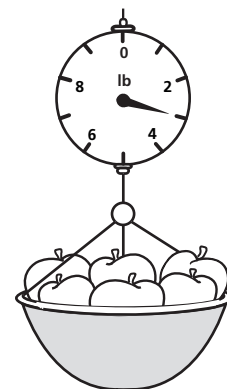
4	4 quarts	+	_____ quarts	=	_____ quarts
	_____ cups	+	_____ cups	=	36 cups



Test Prep

- 5 The scale shows how much 6 apples weigh. How much would 10 apples of the same size weigh?

- A. 5 pounds C. 10 pounds
B. 6 pounds D. 12 pounds



Measuring Weight in Grams and Kilograms

Complete the tables.

1	Kilograms	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$		
	Grams	1,000				2,750	3,000

2	Meters	$\frac{1}{2}$	1	$1\frac{1}{2}$	2		$2\frac{3}{4}$
	Centimeters		100			250	

3	Yards	1	$1\frac{1}{2}$	2		3	
	Feet	3			$7\frac{1}{2}$		$10\frac{1}{2}$

4	Quarts	1	$1\frac{1}{2}$	2	5	7	$8\frac{1}{2}$
	Cups	4					



Test Prep

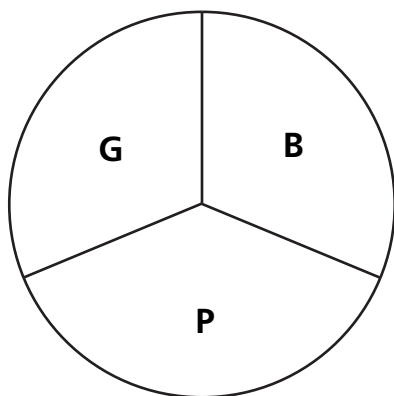
- 5** Which container would most likely have a capacity that is measured in quarts?

- A. a drinking glass
- B. a large aquarium
- C. a watering can
- D. a swimming pool

- 6** Describe a rhombus.

Finding Combinations of Attributes

- 1 This spinner is divided into 3 equal parts.



G = green

B = blue

P = purple

Continue the list until you have listed all possibilities.

Not all of the blanks will be used.



If you spin the spinner twice, you could get:

1st Spin	2nd Spin
G	B
G	G

Test Prep

- 2 What number must replace the square to make the number sentence true?

$$(4 \times 5) + 2 = \blacksquare \times 2$$

- A. 20 C. 14
B. 11 D. 9

- 3 What numbers must replace the ● and the ■ to make both number sentences true?

$$\bullet \times \blacksquare = 36$$

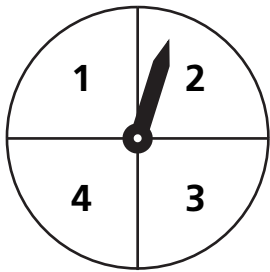
$$\bullet - \blacksquare = 5$$

- A. 6, 6 C. 9, 4
B. 4, 9 D. 12, 3

Describing the Likelihood of An Event

1 Complete the table to show what the sum of the two spins could be.

Johnny spins the spinner twice.



		1ST SPIN			
		1	2	3	4
2ND SPIN	1	2	3		
	2				
	3				
	4				

2 Label the events **certain**, **likely**, **unlikely**, or **impossible**.

The sum is 10.

The sum is 7.

The sum is greater than 0.

The sum is less than 7.

The sum is 4, 5, or 6.

The sum is 2.

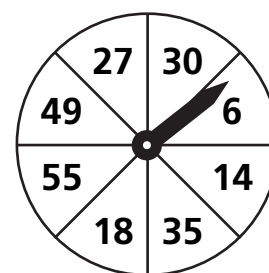


Test Prep

3 Sue needs only the red candies from bags of mixed colors. Each bag contains 28 candies, of which $\frac{1}{4}$ are red. How many bags should Sue buy if she needs 21 red candies? Explain.

Introducing Probability

If Laura spins the spinner once,
what is the probability that the spinner . . .



1 lands on a multiple of 3? $\frac{4}{8}$ does not land on a multiple of 3? _____	2 lands on an even number? _____ lands on an odd number? _____
3 lands on a multiple of 5? _____ lands on a multiple of 10? _____	4 lands on a one-digit number? _____ lands on a two-digit number? _____
5 lands on a three-digit number? _____ lands on a number with a 1 in the ones place? _____	6 lands on a number less than 100? _____ lands on a number greater than 5? _____



Test Prep

- 7** How many pairs of parallel lines does this figure have?



- A. 0 C. 2
B. 1 D. 3

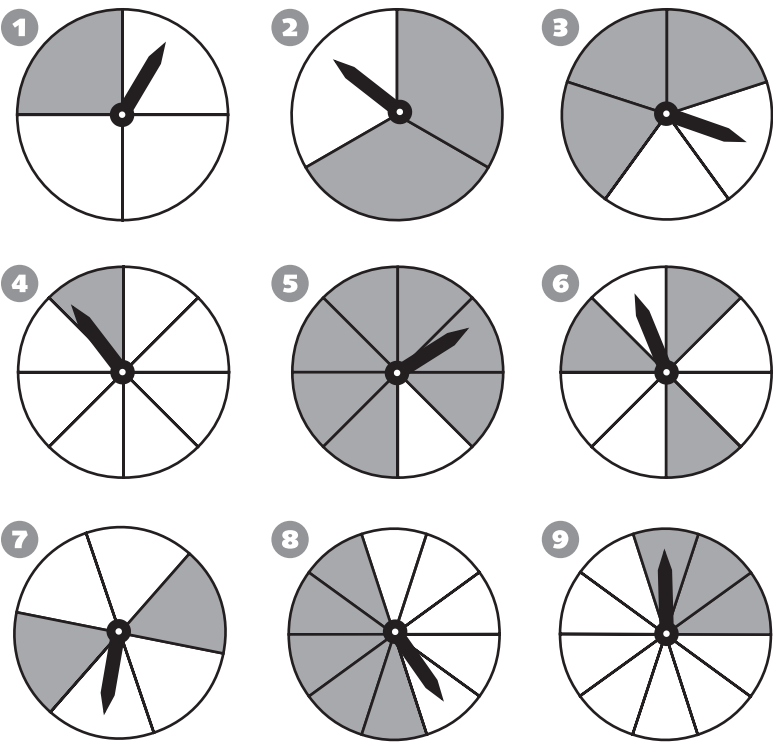
- 8** How many lines of symmetry can be drawn on this square?



- A. 0 C. 2
B. 1 D. 4

Drawing From a Deck of Attribute Cards

Complete the table to match the spinners.



Which spinners are more likely to land on gray than on white? _____

Which spinners are more likely to land on white than on gray? _____

Which spinner is as likely to land on gray as it is to land on white? _____

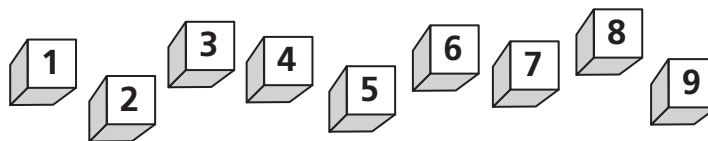
	Probability that the spinner will land on gray	Probability that the spinner will land on white
1	$\frac{1}{4}$	$\frac{3}{4}$
2		
3		
4		
5		
6		
7		
8		
9		



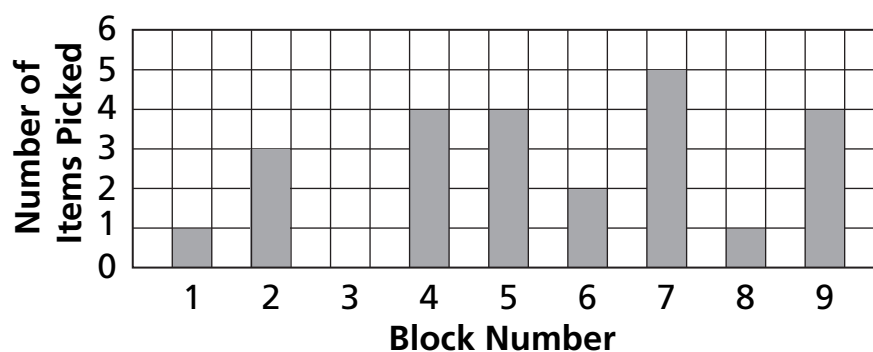
Test Prep

10	$\square + \triangle$	8		5	15			27	13
	\square	5	9		8		7		
	\triangle	3	4	2		9			
	$\square \times \triangle$	15		6		45	49	50	40

Drawing Blocks



Each student in Mrs. Ferrelli's class drew a block at random. This graph shows the class's results.



- 1 Which block was picked most frequently? _____
- 2 Which block was picked least frequently? _____
- 3 How many times was block #6 picked? _____
- 4 Which 3 blocks were picked the same number of times? _____
- 5 How often was each of the 3 blocks from question 4 picked? _____



Test Prep

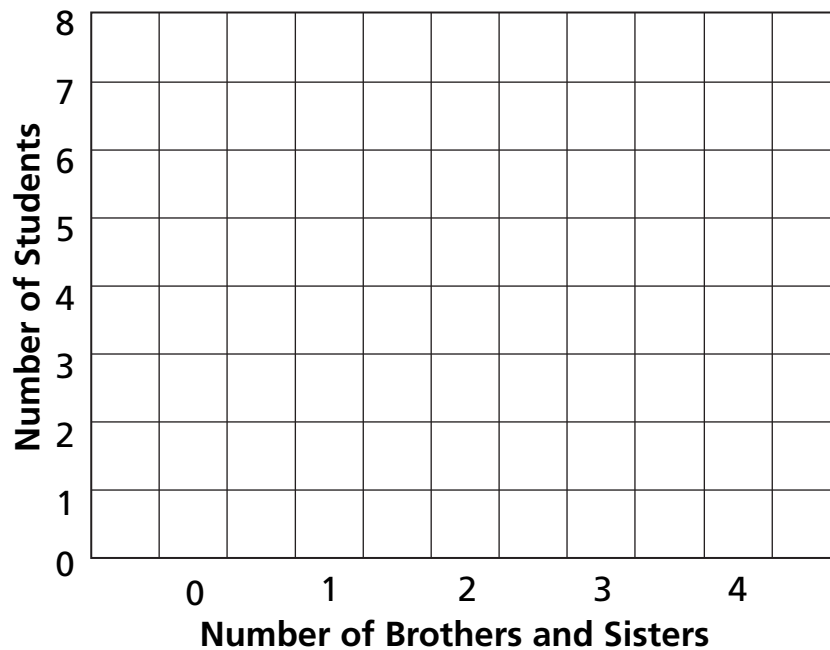
- 6 Stephen arranged the numbers 1, 3, 7, 5, and 9 to make a 5-digit number. He put the 3 in the hundreds place. What is the smallest number he could have written?
A. 13,579 C. 31,759
B. 15,379 D. 91,351
- 7 What number would be eighth in this pattern?
5, 15, 30, 50, 75, . . .
A. 180 C. 90
B. 140 D. 85

Collecting and Analyzing Survey Data

Amal surveyed his class to find out how many brothers and sisters each student had. Here is his data.

0	3	2	2	1	1	3	0	2	0	1	2
1	1	4	0	0	1	1	2	3	1	2	2

1 Graph the data.



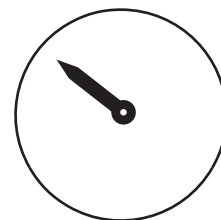
2 What is the greatest number of siblings any student has? _____

3 How many more students have 2 siblings than have 4 siblings? _____



Test Prep

4 How could you create a 6-color spinner with which you were equally likely to land on any color? Explain.

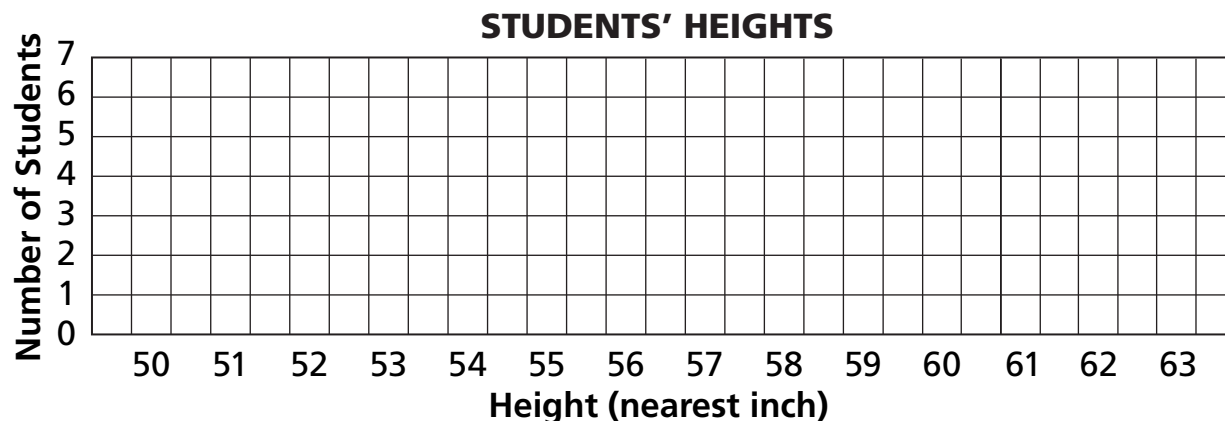


Collecting Measurement Data

Here are the height measurements collected by a fourth-grade class.

52 inches	57 inches	54 inches	56 inches
54 inches	60 inches	57 inches	59 inches
56 inches	56 inches	57 inches	54 inches
60 inches	57 inches	50 inches	52 inches

- 1 Graph the data that the fourth-grade class collected.

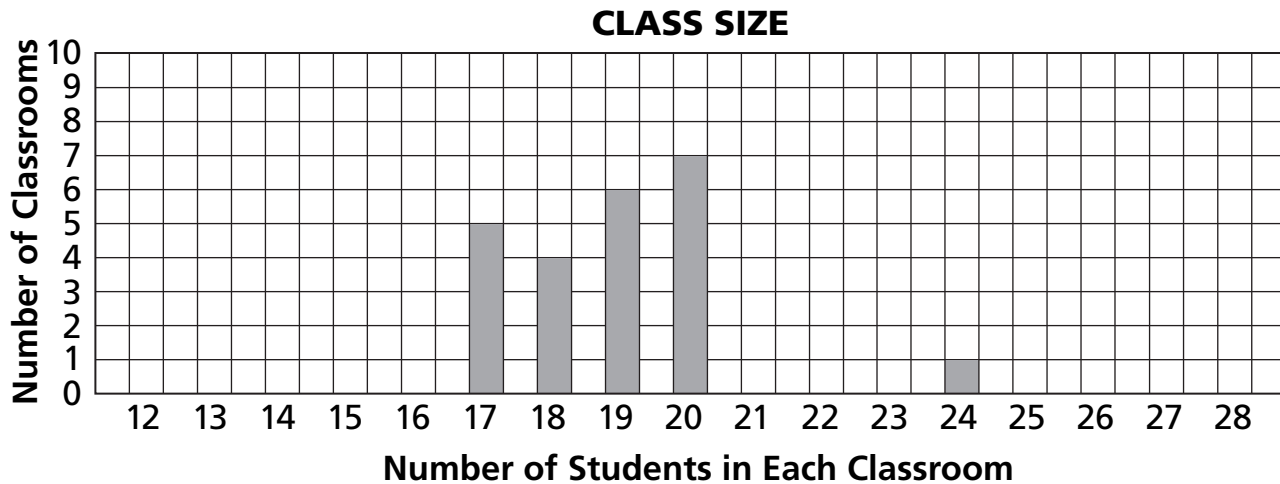


Test Prep

- 2 Tyler bought 3 cartons of juice to share with his friends. Each juice carton costs 32¢. Tyler had 3 quarters and 3 dimes in his pocket. Which coins should he use to buy the juice? How much change will he receive? Explain.

Analyzing Measurement Data

The graph describes the class sizes at Westlawn Elementary School.



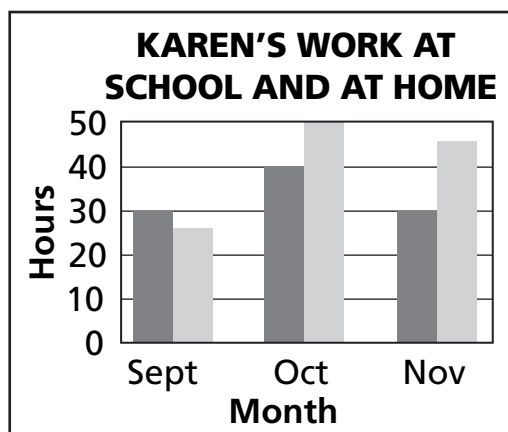
- ❶ How many classrooms are in the school? _____ classrooms
- ❷ What is the greatest class size? _____ students
- ❸ What is the most common class size? _____ students

If you visit one classroom at random . . .

- ❹ What is the probability of visiting a class with 18 students? _____
- ❺ What is the probability of visiting a class with 22 students? _____



Test Prep

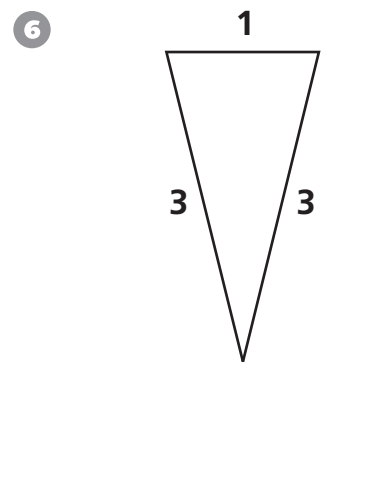
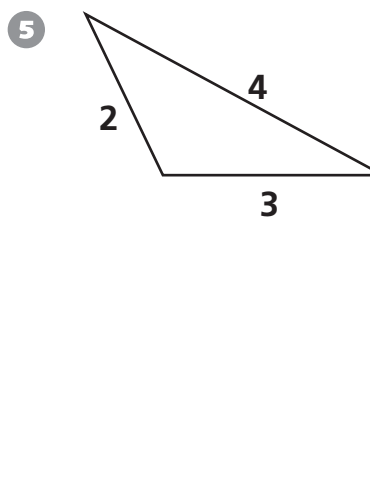
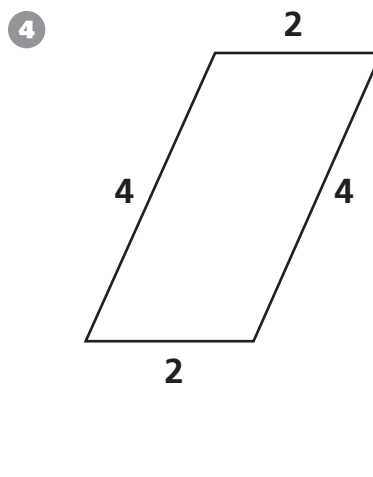
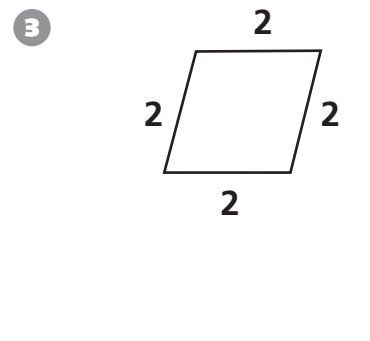
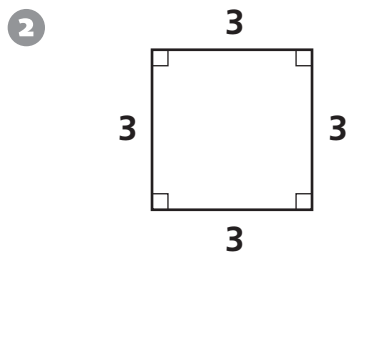
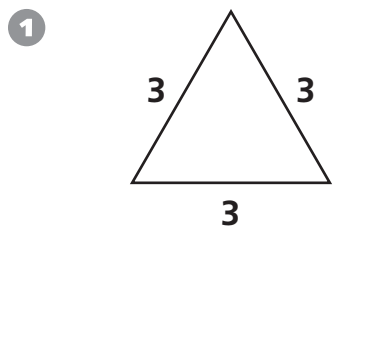


■ = hours of school work
 ■ = hours of chores

- ❻ How many more hours of school work did Karen do in October than in September?
 A. 0 C. 10
 B. 5 D. 25
- ❼ In which month did Karen do more school work than chores?

Making a Figure Zoo

Write the most specific name for each figure (parallelogram, rectangle, square, rhombus, acute triangle, equilateral triangle, or obtuse triangle).

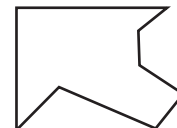
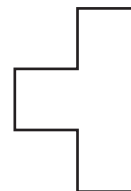
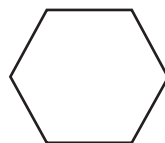


Test Prep

- 7 Allison drew these figures:

Which is the best description of the figures she drew?

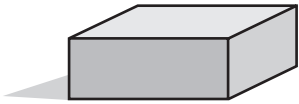
- A. closed figures with right angles
- B. closed figures with 7 or more sides
- C. closed figures with 6 or more sides
- D. closed figures with parallel sides



Describing Three-Dimensional Figures

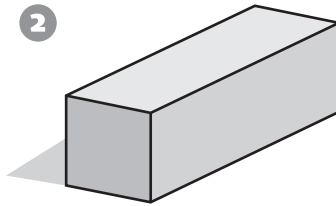
Label the figures **pyramid**, **prism**, or **neither**. If a figure looks like a parallelogram, it is.

1

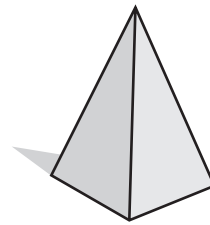


prism

2

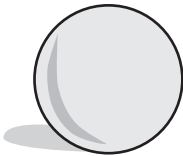


3

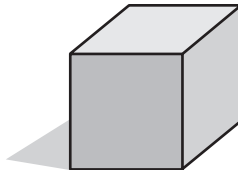


pyramid

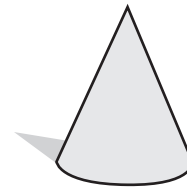
4



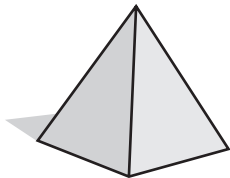
5



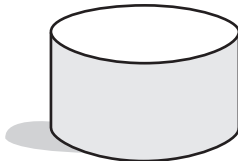
6



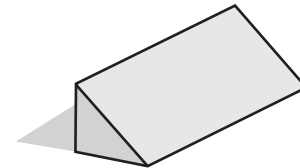
7



8

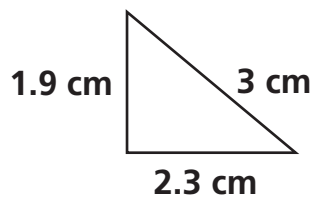
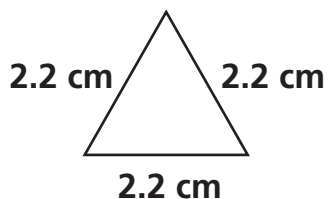


9



Test Prep

10 Find the perimeters of the triangles.



Going On a Figure Safari

Figure 1

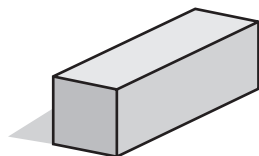
rectangular
prism

Figure 2

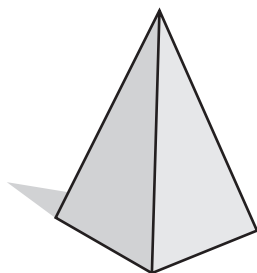
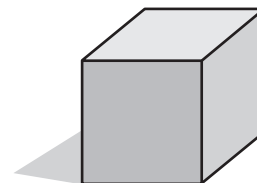
triangular
pyramid

Figure 3

triangular
prism

Figure 4



cube

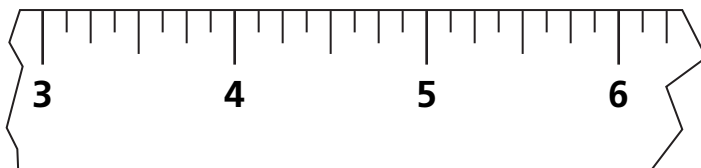
List all the figures that match each set of clues.

Clues	Answers
1 <input checked="" type="checkbox"/> I have more than one pair of parallel faces.	
2 <input checked="" type="checkbox"/> I have 9 edges.	
3 <input checked="" type="checkbox"/> I am a prism and at least one of my faces is not a rectangle.	



Test Prep

4



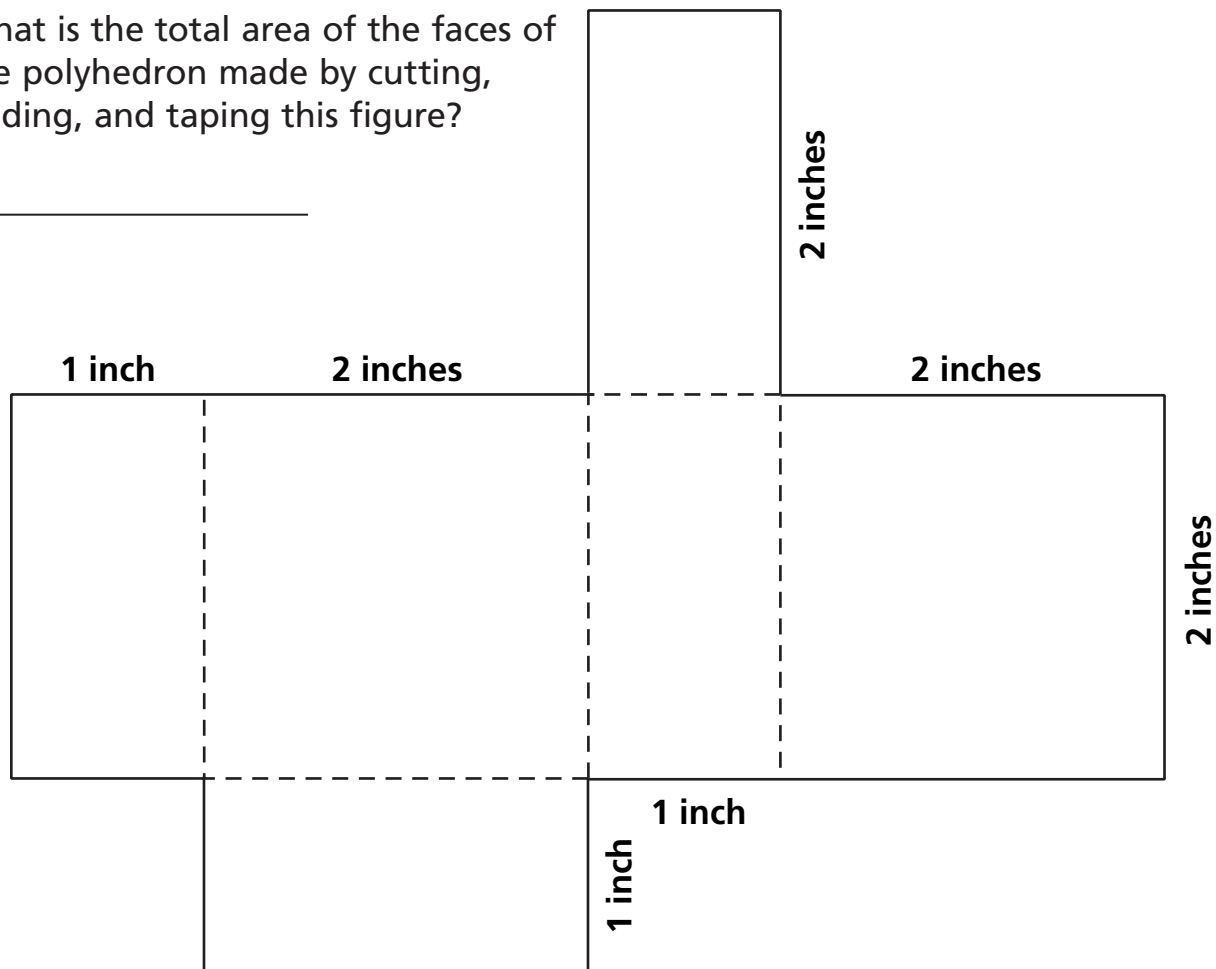
How long is the drawing of the truck?

- A. $5\frac{3}{4}$ inches
- B. $2\frac{3}{4}$ inches
- C. $5\frac{1}{2}$ inches
- D. $2\frac{1}{2}$ inches

Finding the Areas of Faces on Three-Dimensional Figures

All of the sections of the figure below are rectangles.

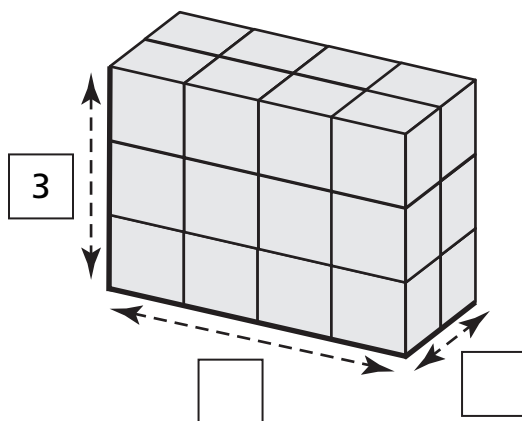
- 1 What is its area? _____ square inches
- 2 What is the total area of the faces of the polyhedron made by cutting, folding, and taping this figure?



Test Prep

- | | |
|---|--|
| <p>3 Which polygon always has four congruent sides?</p> <p>A. rectangle C. parallelogram</p> <p>B. trapezoid D. rhombus</p> | <p>4 What are perpendicular lines?</p> <p>_____</p> <p>_____</p> |
|---|--|

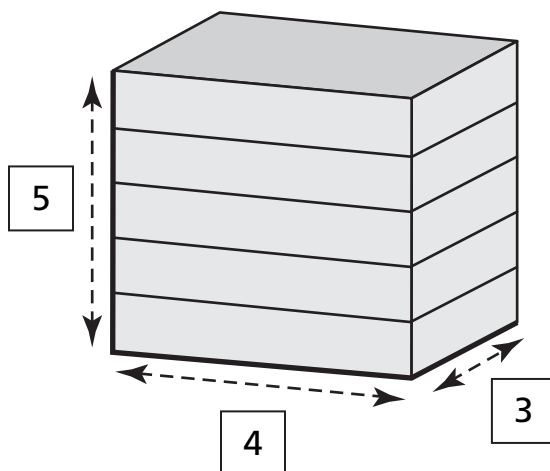
Finding Volumes of Three-Dimensional Figures

1

Number of cubes
in each layer: _____ cubes

Number of cubes
in the figure: _____ cubes

Volume: _____ cubes

2

Number of cubes
in each layer: _____ cubes

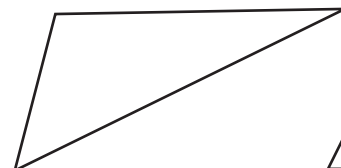
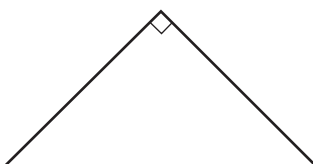
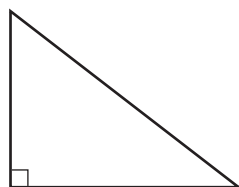
Number of cubes
in the figure: _____ cubes

Volume: _____ cubes



Test Prep

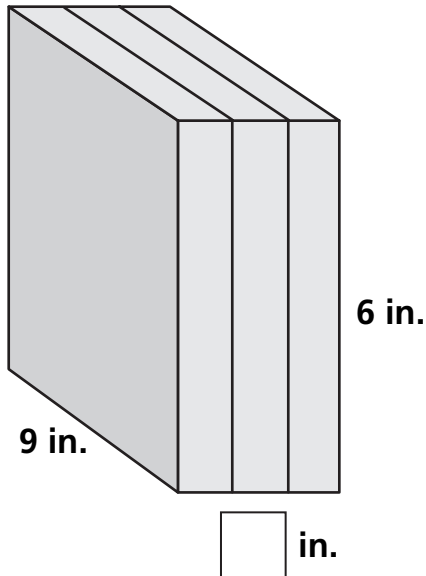
3 Circle the triangle that has an obtuse angle.



More Volumes of Three-Dimensional Figures

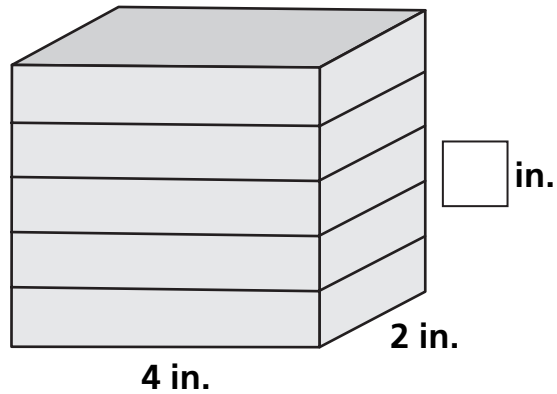
Find the volumes of these rectangular prisms in cubic inches.

1



Volume: _____ cubic inches

2



Volume: _____ cubic inches

3 What is the volume of a 1 in. \times 8 in. \times 7 in. prism? _____ cubic inches

4 What is the volume of a 2 in. \times 6 in. \times 9 in. prism? _____ cubic inches

5 What is the volume of a 4 in. \times 2 in. \times 11 in. prism? _____ cubic inches



Test Prep

6 Which unit would best measure the mass of a bug?

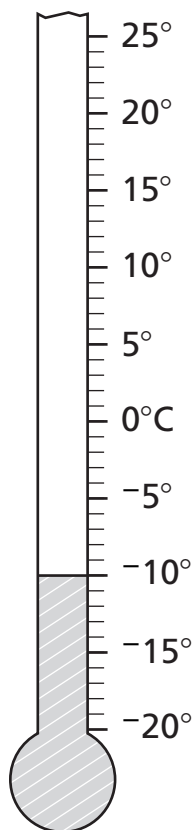
- A. kilograms C. grams
B. millimeters D. centimeters

7 Which is longer, 1 meter or 50 centimeters? Explain.

Introducing Negative Numbers

Here are the daily low temperatures for one cold week. Fill in the table to show how the temperature changed from one day to the next.

1



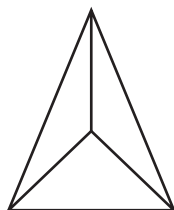
Day	Low Temperature	Change From Yesterday
Sunday	-10°C	
Monday	-16°C	6 degrees lower
Tuesday	6°C	
Wednesday	13°C	
Thursday		15 degrees lower
Friday		9 degrees lower
Saturday	-19°C	



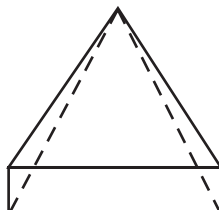
Test Prep

2 Which of these figures has 5 faces and 5 vertices?

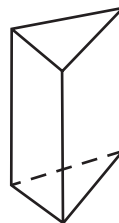
A.



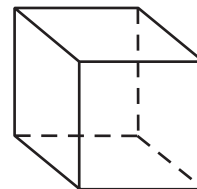
B.



C.

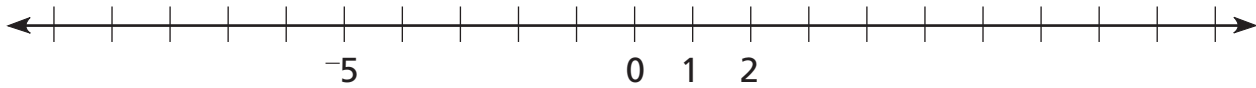


D.



Negative Numbers on the Number Line

Fill in the missing numbers on this number line and use it to help you answer the questions.



- 1 Start at 0. Jump forward 6 spaces.
Then jump backward 8 spaces.

Where are you? _____

- 2 Start at 3. Jump backward 8 spaces.
Then jump forward 12 spaces.

Where are you? _____

- 3 Start at 10. Jump backward 20 spaces.
Then jump forward 6 spaces.

Where are you? _____

- 4 Start at -3 . Jump backward 6 spaces.
Then jump forward 2 spaces.

Where are you? _____



Test Prep

- 5 What decimal is equal to $\frac{52}{100}$?

A. 0.0052
B. 0.052
C. 0.52
D. 52

- 6 What fraction is equal to 0.25?

A. $\frac{1}{4}$ C. $\frac{1}{2}$
B. $\frac{1}{3}$ D. $\frac{2}{5}$

Navigating on a Coordinate Grid

1 Write the ordered pair for each building on the map.

School
(1,6)

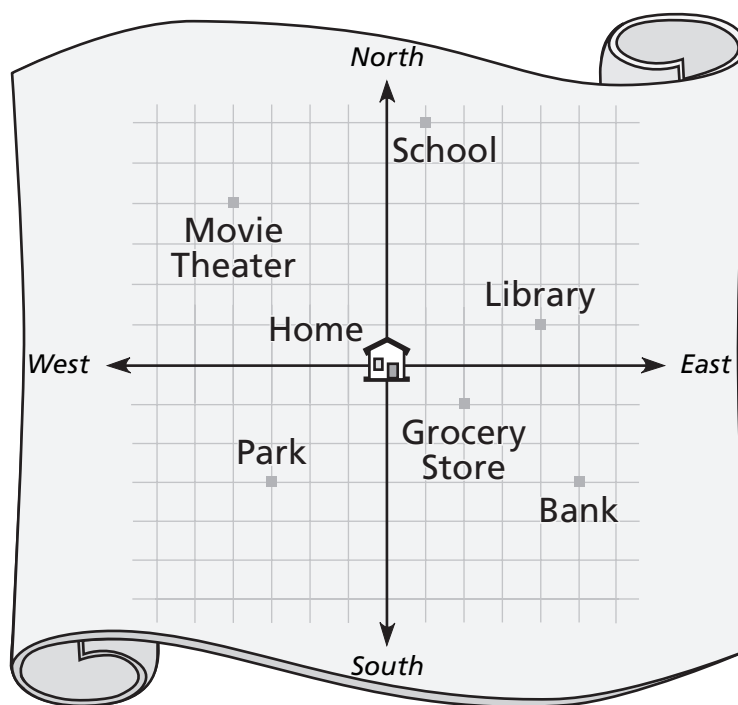
Bank

Library

Park

Movie Theater

Grocery Store



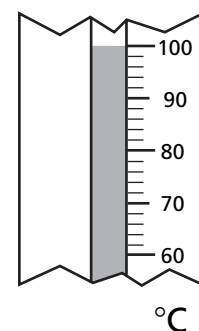
2 The Community Center is at $(-3,5)$. Mark its location with a star.



Test Prep

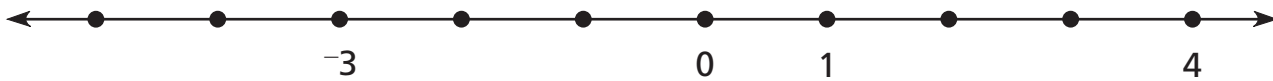
- 3 Caitlin boiled water for a science experiment. This thermometer shows the water's temperature when it was boiling. She checked it 10 minutes later and found the water's temperature had dropped by 23°C . What was the new temperature?

- A. 67°C C. 77°C
B. 73°C D. 87°C



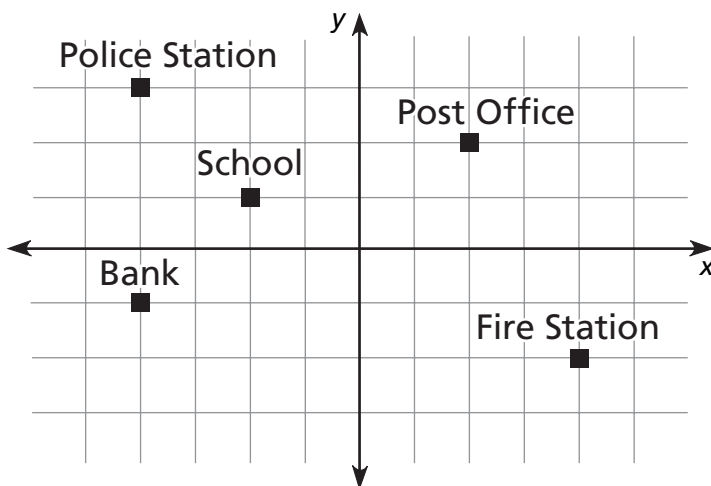
Points and Lines on a Grid

- 1 Fill in the missing numbers on the number line. You can use the number line to help answer the questions.



- 2 At 7:00 A.M. on Sunday, the temperature was 4° . At 9:00 P.M., the thermometer read -2° . What was the change in temperature between these two times?
- 3 Sean placed his finger at -5 on the number line. He jumped forward 6 spaces and then back 1 space. Where did his finger land?

- 4 Write the coordinate pair for each building on the map.



Police Station ($-4, 3$)

School (_____, _____)

Bank (_____, _____)

Post Office (_____, _____)

Fire Station (_____, _____)

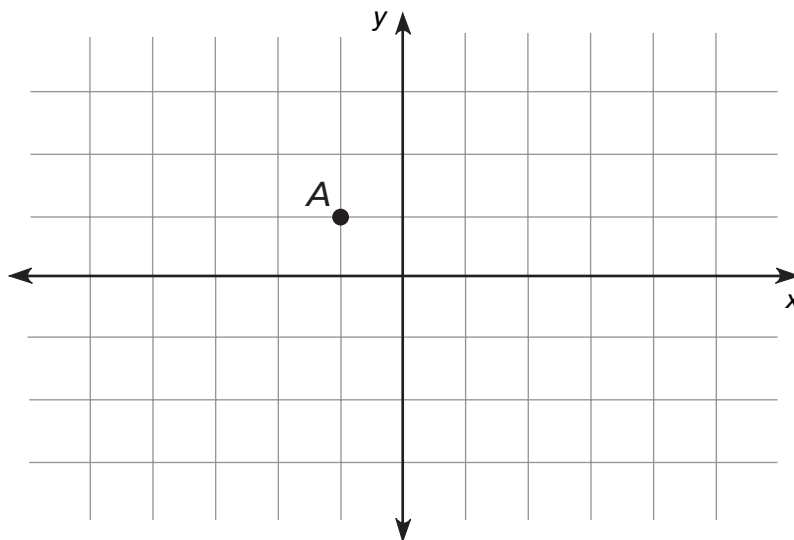


Test Prep

- 5 Miri opened a bottle containing 1 liter of juice. She shared the juice equally with her sister Jordyn. How many milliliters of juice did they each get? Explain how you found the answer.

Drawing Figures on a Coordinate Grid

- 1 Follow the directions to draw the picture.



Mark **A** at $(-1, 1)$.

Draw \overline{AB} .

Mark **B** at $(2, 1)$.

Draw \overline{BC} .

Mark **C** at $(2, -2)$.

Draw \overline{CD} .

Mark **D** at $(1, -1)$.

Draw \overline{DE} .

What shape do you see?

Mark **E** at $(-1, -3)$.

Draw \overline{EF} .

Mark **F** at $(-2, -2)$.

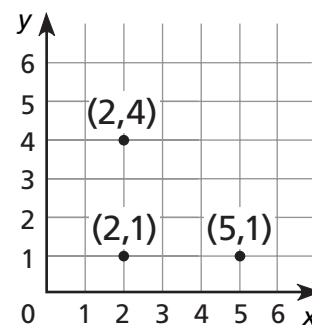
Draw \overline{FG} .

Mark **G** at $(0, 0)$.

Draw \overline{GA} .

Test Prep

- 2 Antonio is drawing a square on the grid. What is the ordered pair for the fourth corner of the square? Explain how you found the coordinates.



Moving Figures on a Coordinate Grid

- 1 Follow the directions to draw the figure.

Mark **A** at (8,5).

Draw \overline{AB} .

Mark **B** at (5,5).

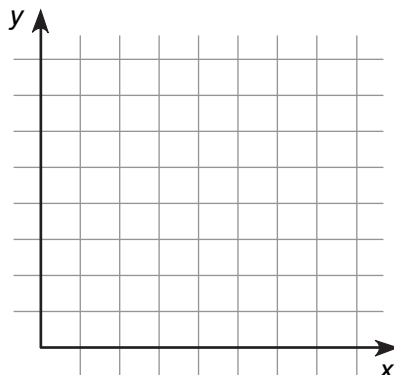
Draw \overline{BC} .

Mark **C** at (3,3).

Draw \overline{CD} .

Mark **D** at (6,3).

Draw \overline{DA} .



- 2 Subtract 3 from both coordinates of each point, and label the new figure #1.

Original Points	New Points
(8,5)	(5, 2)
(5,5)	
(3,3)	
(6,3)	

- 3 Add 3 to the vertical (second) coordinate of each point, and label the new figure #2.

Original Points	New Points
(8,5)	(8,8)
(5,5)	
(3,3)	
(6,3)	



Test Prep

- 4 Mr. Macus needs to visit the Bank, the Library, and the Post Office tomorrow. Here are some of the possible orders he might visit them.

1. Bank
2. Post Office
3. Library

1. Library
2. Post Office
3. Bank

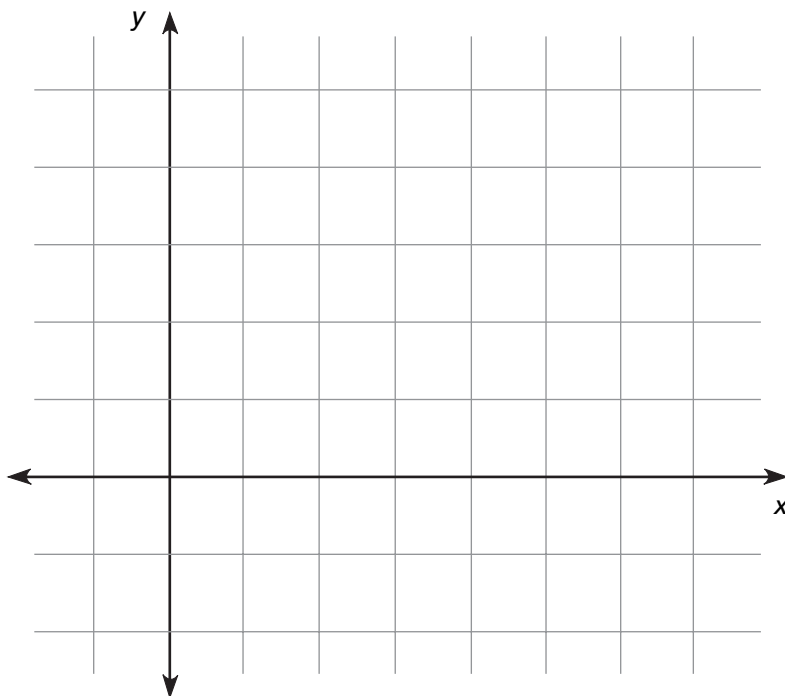
1. Bank
2. Library
3. Post Office

List all of the other possible orders he might follow.

Number Sentences and Straight Lines

- 1 Find at least 5 pairs of numbers that make this number sentence true: $y = x - 2$.

(x,y)



- 2 Graph the points described by the pairs of numbers in the table.



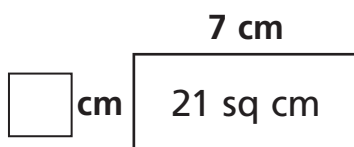
Test Prep

- 3 Jamal started his homework at 2:55 P.M. He finished one hour and fifty minutes later. When did he finish his homework?
- A. 3:45 P.M. C. 4:45 P.M.
B. 4 P.M. D. 5:05 P.M.
- 4 Which number sentence is true if you substitute 11 for ■?
- A. $111 \div \blacksquare = 11$
B. $121 \div \blacksquare = 12$
C. $132 \div \blacksquare = 12$
D. $110 \div \blacksquare = 11$

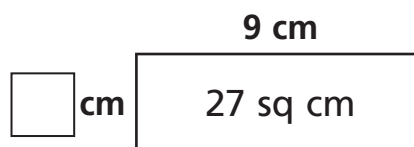
Finding Missing Dimensions

Find the missing dimension or area for each rectangle.

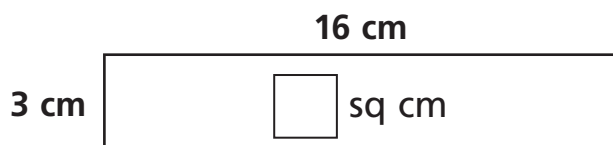
1



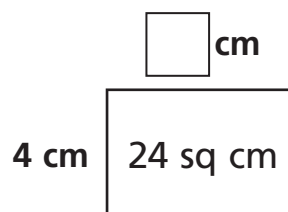
2



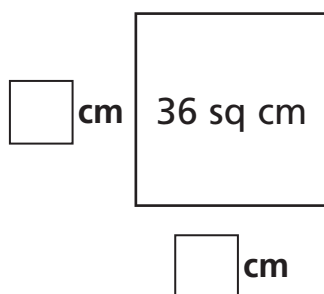
3



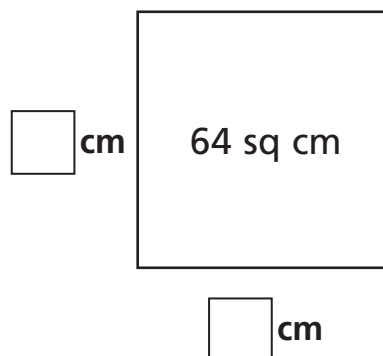
4



5



6



Test Prep

7 Which number sentence matches this situation?

Jan has 12 different shirts that he matches with his pants to make 108 different outfits.

A. $12 + \blacksquare = 108$

C. $108 - 12 = \blacksquare$

B. $12 \times \blacksquare = 108$

D. $12 \times 108 = \blacksquare$

Finding Missing Factors

Write the correct number in each box.

1

$4 \times 3 = \underline{\hspace{2cm}}$

$40 \times 3 = \underline{\hspace{2cm}}$

$4 \times 30 = \underline{\hspace{2cm}}$

$40 \times 30 = \underline{\hspace{2cm}}$

2

$5 \times 7 = \underline{\hspace{2cm}}$

$5 \times 70 = \underline{\hspace{2cm}}$

$50 \times 7 = \underline{\hspace{2cm}}$

$50 \times 70 = \underline{\hspace{2cm}}$

3

$3 \times 11 = \underline{\hspace{2cm}}$

$30 \times 11 = \underline{\hspace{2cm}}$

$30 \times 110 = \underline{\hspace{2cm}}$

$3 \times 110 = \underline{\hspace{2cm}}$

4

$7 \times 9 = \underline{\hspace{2cm}}$

$7 \times 90 = \underline{\hspace{2cm}}$

$70 \times 90 = \underline{\hspace{2cm}}$

$70 \times 9 = \underline{\hspace{2cm}}$

5

$8 \times 700 = \underline{\hspace{2cm}}$

$80 \times \underline{\hspace{2cm}} = 5,600$

$8 \times \underline{\hspace{2cm}} = 560$

$\underline{\hspace{2cm}} \times 70 = 56,000$

6

$50 \times \underline{\hspace{2cm}} = 200$

$50 \times \underline{\hspace{2cm}} = 2,000$

$\underline{\hspace{2cm}} \times 400 = 2,000$

$\underline{\hspace{2cm}} \times 400 = 20,000$



Test Prep

7 1 dozen = 12

How many in 50 dozen?

A. 60**C.** 600**B.** 120**D.** 1,000**8** 1 score = 20

How many scores in 800?

A. 4**C.** 1,600**B.** 40**D.** 16,000

Finding Missing Factors More Efficiently

Compare. Write $<$, $>$, or $=$. Hint: Use estimation.

1 24×9 20×9

2 96×7 90×7

3 38×5 40×5

4 51×8 51×10

5 27×6 25×6

6 72×4 70×4

7 83×5 80×5

8 43×6 240

9 79×8 640

10 37×5 200

11 26×4 100

12 91×6 540

13 74×7 490

14 52×8 400



Test Prep

- 15 One CD costs \$11.99, including tax. Joyce bought 4 CDs. Use estimation to decide if she paid more or less than \$48. Explain how you found your answer.

Estimating Missing Factors and Quotients

Compare. Write $<$, $>$, or $=$. Hint: Use estimation.

1 19×31 20×31

2 19×31 19×30

3 19×31 19×40

4 19×31 10×31

5 52×28 50×28

6 52×28 50×20

7 52×28 52×30

8 52×28 60×30

9 27×16 20×16

10 27×16 27×20

11 27×16 27×10

12 27×16 30×16

13 64×76 64×80

14 64×76 60×76

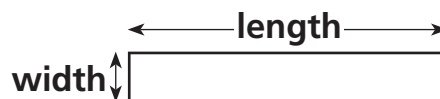
15 64×76 64×70

16 64×76 60×70



Test Prep

- 17** The length of the rectangular garden is ten times the width. If the width is 4 feet, what is the area? Explain how you found the answer.



Dividing Using Multiplication Puzzles

Solve.

1 $7 \times 10 = \underline{\hspace{2cm}}$ $7 \times 3 = \underline{\hspace{2cm}}$ $7 \times 13 = \underline{\hspace{2cm}}$	2 $9 \times 20 = \underline{\hspace{2cm}}$ $9 \times 1 = \underline{\hspace{2cm}}$ $9 \times 21 = \underline{\hspace{2cm}}$	3 $6 \times 6 = \underline{\hspace{2cm}}$ $6 \times 40 = \underline{\hspace{2cm}}$ $6 \times 46 = \underline{\hspace{2cm}}$
4 $5 \times 30 = \underline{\hspace{2cm}}$ $5 \times 6 = \underline{\hspace{2cm}}$ $5 \times 36 = \underline{\hspace{2cm}}$	5 $8 \times 90 = \underline{\hspace{2cm}}$ $8 \times 4 = \underline{\hspace{2cm}}$ $8 \times 94 = \underline{\hspace{2cm}}$	6 $4 \times 60 = \underline{\hspace{2cm}}$ $4 \times 2 = \underline{\hspace{2cm}}$ $4 \times 62 = \underline{\hspace{2cm}}$
7 $11 \times 30 = \underline{\hspace{2cm}}$ $11 \times 5 = \underline{\hspace{2cm}}$ $11 \times 35 = \underline{\hspace{2cm}}$	8 $25 \times 4 = \underline{\hspace{2cm}}$ $25 \times 80 = \underline{\hspace{2cm}}$ $25 \times 84 = \underline{\hspace{2cm}}$	9 $30 \times 90 = \underline{\hspace{2cm}}$ $30 \times 1 = \underline{\hspace{2cm}}$ $30 \times 91 = \underline{\hspace{2cm}}$
10 $90 \times 5 = \underline{\hspace{2cm}}$ $90 \times 50 = \underline{\hspace{2cm}}$ $90 \times 55 = \underline{\hspace{2cm}}$	11 $50 \times 70 = \underline{\hspace{2cm}}$ $50 \times 5 = \underline{\hspace{2cm}}$ $50 \times 75 = \underline{\hspace{2cm}}$	12 $200 \times 20 = \underline{\hspace{2cm}}$ $200 \times 9 = \underline{\hspace{2cm}}$ $200 \times 29 = \underline{\hspace{2cm}}$



Test Prep

- 13** Markers come in boxes of 8. Mrs. Snow bought 27 boxes, but then she returned 4 boxes. How many markers did she have then? Explain how you found the answer.

Completing Division Sentences

Write the correct number in each box.

1

$6 \times 20 = \underline{\hspace{2cm}}$

$6 \times 3 = \underline{\hspace{2cm}}$

$6 \times 23 = \underline{\hspace{2cm}}$

2

$4 \times 10 = \underline{\hspace{2cm}}$

$4 \times 7 = \underline{\hspace{2cm}}$

$4 \times 17 = \underline{\hspace{2cm}}$

3

$7 \times 30 = \underline{\hspace{2cm}}$

$7 \times 4 = \underline{\hspace{2cm}}$

$7 \times 34 = \underline{\hspace{2cm}}$

4

$5 \times 7 = \underline{\hspace{2cm}}$

$5 \times 80 = \underline{\hspace{2cm}}$

$5 \times 87 = \underline{\hspace{2cm}}$

5

$9 \times 6 = \underline{\hspace{2cm}}$

$9 \times 50 = \underline{\hspace{2cm}}$

$9 \times 56 = \underline{\hspace{2cm}}$

6

$8 \times 90 = \underline{\hspace{2cm}}$

$8 \times 7 = \underline{\hspace{2cm}}$

$8 \times 97 = \underline{\hspace{2cm}}$

7

$\underline{\hspace{2cm}} \div 30 = 50$

$\underline{\hspace{2cm}} \div 8 = 50$

$\underline{\hspace{2cm}} \div 38 = 50$

8

$\underline{\hspace{2cm}} \div 50 = 25$

$\underline{\hspace{2cm}} \div 9 = 25$

$\underline{\hspace{2cm}} \div 59 = 25$

9

$\underline{\hspace{2cm}} \div 5 = 1,000$

$\underline{\hspace{2cm}} \div 10 = 1,000$

$\underline{\hspace{2cm}} \div 15 = 1,000$



Test Prep



- 10** 16 quarters are worth how many cents?

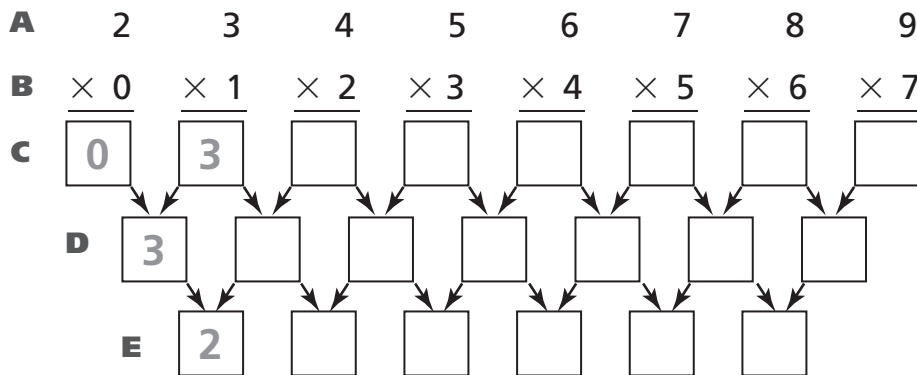
A. 4 C. 400
B. 40 D. 4,000

- 11** How many quarters are worth \$5?

A. 20 C. 50
B. 40 D. 125

Number Puzzles

- 1 Complete the puzzle. Each number in rows D and E is the difference between the numbers in the two boxes above it.



- 2 What do you notice about the numbers in rows A and B?

- 3 What do you notice about the numbers in row D?



Test Prep

- 4 Multiplying 37 by multiples of 3 creates a pattern.

$$\begin{array}{l} 37 \times 3 = 111 \\ 37 \times 6 = 222 \\ 37 \times 9 = 333 \end{array}$$

Assuming the pattern continues, what is 37×24 ?

- A. 666 C. 888
B. 777 D. 999

- 5 Explain how you found the answer.

Introducing Variables

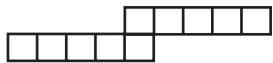
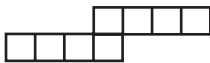
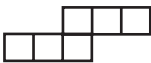
1 Complete the puzzle.

		A	B	C	D	E	F
Think of a number.	⌘	2	8			1	
Add 3.	⌘ ...	5		15	10		
Triple the result.	⌘⌘⌘ ...						
Subtract 1.	⌘⌘⌘ ...						
Subtract the number you thought of first.	⌘⌘ ...						
Divide by 2.	⌘ ...						
Subtract the number you thought of first.	...						



Test Prep

2 Tyken used squares to make the pattern shown.










How many squares are in the 10th figure in the pattern?

- A. 16 B. 18 C. 20 D. 22

Introducing a Shorthand Notation

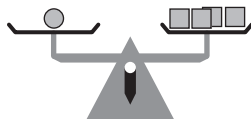
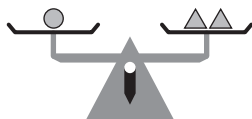
- 1 Complete the shorthand notation for this puzzle. Then figure out the numbers in each round of the puzzle.

Words	Pictures	Shorthand	A	B	C
Think of a number.		x	10	5	
Double it.		$2x$	20		
Double it again.					
Subtract the number you thought of first.					
Add 6.					30
Divide by 3.		$x + 2$			
Subtract the number you thought of first.					

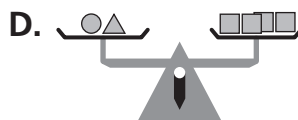
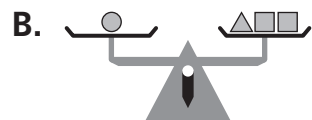
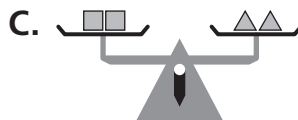
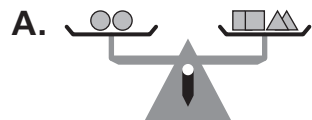


Test Prep

- 2 These scales are balanced.








Which scale is also balanced?



Using Shorthand Notation to Complete Number Puzzles

Fill in the missing numbers.

1	Think of a number.		12				
		 :::	30	14	6	40	8

		F	G	H	I	J
2	Think of a number.		6			
		  + 100	138		220	150
						100

3

		K	L	M	N	O
Think of a number.	x				9	
	$5x + 75$	90	80	125		175

		P	Q	R	S	T
4	Think of a number.	x			15	
		$3x + 150$	225	150	300	240



Test Prep

5 If $x = 4$, what is $3x + 18$?

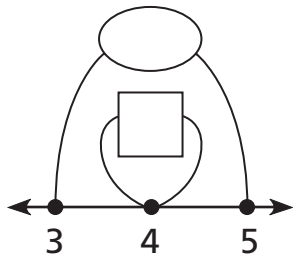
- A. 25
- B. 28
- C. 30
- D. 52

6 Explain how you found x .

Using Square Numbers to Remember Other Multiplication Facts

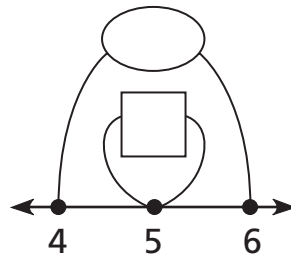
Complete the diagrams and number sentences.

1



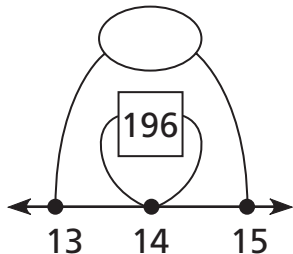
$$4 \times 4 = \square \quad 3 \times 5 = \bigcirc$$

2



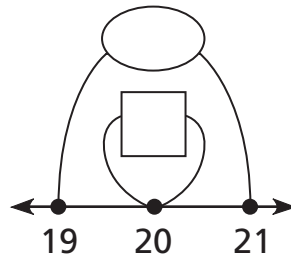
$$5 \times 5 = \square \quad 4 \times 6 = \bigcirc$$

3



$$14 \times 14 = \square \quad 13 \times 15 = \bigcirc$$

4



$$20 \times 20 = \square \quad 19 \times 21 = \bigcirc$$



Test Prep

- 5 Which equation matches this table?

A	8	12	76
B	16	24	152

- A. $A \times 3 = B$ C. $A + 10 = B$
 B. $A + 3 = B$ D. $A \times 2 = B$

- 6 Explain how you found the right equation.

Generalizing a Multiplication Pattern

Complete the number sentence.

1

$7 \cdot 7 = \square$

$6 \cdot 8 = \bigcirc$

2

$11 \cdot 11 = \square$

$10 \cdot 12 = \bigcirc$

3

$(5 \cdot 5) - 1 = \square$

$4 \cdot 6 = \bigcirc$

4

$(10 \cdot 10) - 1 = \square$

$9 \cdot 11 = \bigcirc$

5

$(12 \cdot 12) - 1 = \square$

$11 \cdot 13 = \bigcirc$

6

$(15 \cdot 15) - 1 = \square$

$14 \cdot 16 = \bigcirc$

7

$(\square \cdot \square) - 1 = 399$

$19 \cdot 21 = \bigcirc$

8

$(\square \cdot \square) - 1 = 3,599$

$59 \cdot \bigcirc = 3,599$



Test Prep

- 9** About how long will an alligator be when it's 10 years old?

- A. 10 feet C. 6 feet
B. 8 feet D. 2 feet

GROWTH RATE OF ALLIGATORS

Years 1–5	1 foot per year
Years 6–15	3 inches per year

Estimation Strategies

Compare. Use $<$, $>$, or $=$. Hint: Estimate!

1 320×8 180×10

2 16×9 24×4

3 70×9 90×7

4 93×15 24×100

5 108×22 250×8

6 99×19 20×100

7 61×8 52×9

8 53×8 101×3

9 104×19 206×15

10 272×5 201×5

11 199×8 147×6

12 189×12 206×9

13 98×15 198×10

14 89×9 11×99



Test Prep

1 gallon = 4 quarts

15 How many quarts are in 10 gallons?

A. $2\frac{1}{2}$

C. 40

B. 20

D. 160

16 How many gallons are in 20 quarts?

A. 5

C. 40

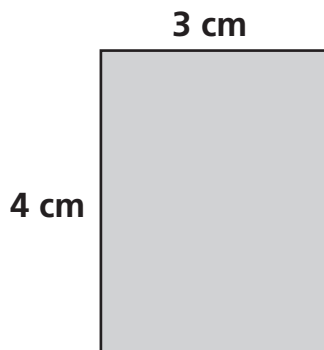
B. 10

D. 80

Estimating and Checking Length and Perimeter

Without using a ruler, say whether each measurement is **correct**, **incorrect** or **impossible to tell**.

1



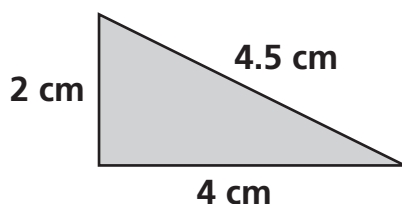
$$\text{Perimeter} = 12 \text{ cm}$$

Correct Incorrect Impossible to tell

$$\text{Area} = 12 \text{ sq cm}$$

Correct Incorrect Impossible to tell

2



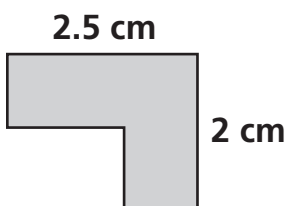
$$\text{Perimeter} = 10.5 \text{ cm}$$

Correct Incorrect Impossible to tell

$$\text{Area} = 4 \text{ sq cm}$$

Correct Incorrect Impossible to tell

3



$$\text{Perimeter} = 9 \text{ cm}$$

Correct Incorrect Impossible to tell

$$\text{Area} = 3.5 \text{ sq cm}$$

Correct Incorrect Impossible to tell



Test Prep

4 Solve: $1.32 + 0.9 = \blacksquare$

A. 1.329

C. 2.22

B. 1.41

D. 10.32

5 Solve: $1.32 - 0.9 = \blacksquare$

A. 0.37

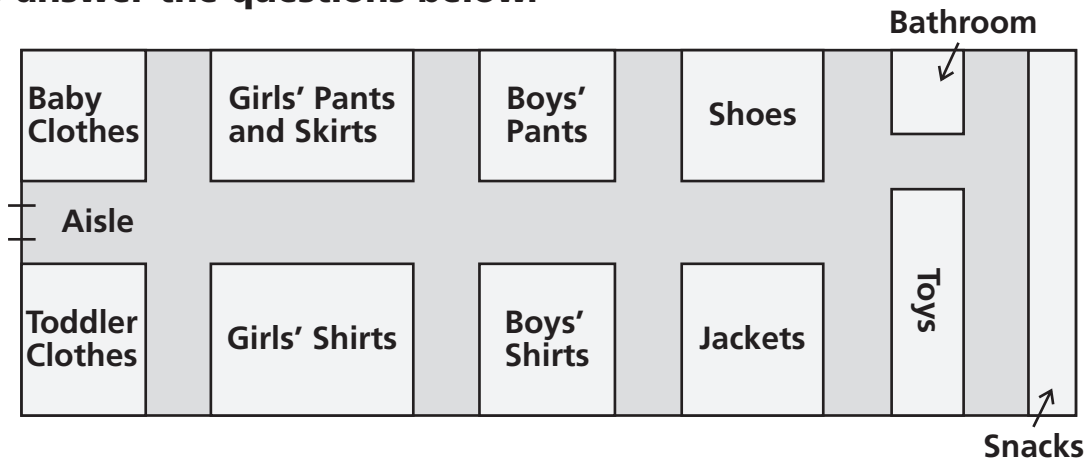
C. 1.23

B. 0.42

D. 2.22

Designing a School

Use this floor plan of a department store to answer the questions below.



- 1 Which section has the most floor space? _____
- 2 Which section has the largest perimeter? _____
- 3 If the aisle is 6 feet wide, what is the approximate perimeter of the baby clothes section? _____ feet
- 4 If the perimeter of the shoe section is 48 feet, what is the approximate area of this section? _____ square feet



Test Prep

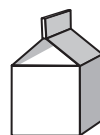
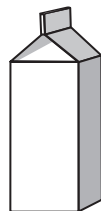
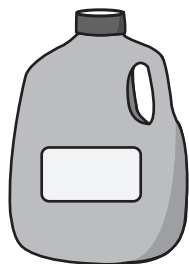
- 5 The length of the rectangular garden is 10 times the width. If the width is 4 feet, what is the area of the garden? Explain your reasoning.

width

length



Estimating and Checking Capacity



1 gallon = 4 quarts = 8 pints = 16 cups

① _____ cups = 1 quart

_____ cups = 3 quarts

② 2 pints = _____ quart

10 pints = _____ quarts

③ _____ cups = $\frac{1}{2}$ gallon

_____ cups = $1\frac{1}{2}$ gallon

④ 6 cups = _____ pints

_____ cups = $7\frac{1}{2}$ pints

⑤ 8 cups = _____ pints

_____ pints = 2 quarts

⑥ 5 pints = _____ cups

3 quarts = _____ cups

8 cups + 2 quarts = _____ gallon

5 pints + 3 quarts = _____ cups



Test Prep

- ⑦ Which number makes the number sentence true?
Explain your reasoning.

$$4 \times 20 = 8 \times \blacksquare$$

Comparing Units of Capacity

Use estimation to compare these capacities.

1 27×8 quarts 26×8 quarts

2 27×8 quarts 26×8 gallons

3 29×4 cups 28×2 pints

4 37×13 pints 36×13 quarts

5 81×27 pints 82×14 quarts

6 73×91 cups 74×23 quarts

7 17 liters $\times 23$ 22×17 quarts

8 56×65 liters 68×57 quarts

9 48×62 cups 61×12 quarts

10 19×27 quarts 27×80 cups

11 34×28 pints 27×34 pints

12 52×23 gallons 23×52 gallons



Test Prep

- 13 Which number makes the number sentence true?

$$(17 \times 30) + (17 \times \blacksquare) = 17 \times 38$$

- A. 38 C. 8
B. 30 D. 7

- 14 What is the value of m in the equation $4m = 20$?

- A. 5 C. 24
B. 16 D. 80

Estimating and Checking Weight

Is the weight reasonable? If not, give a reasonable estimate of the weight.

1



5 kilograms

Yes No

Reasonable Weight

2

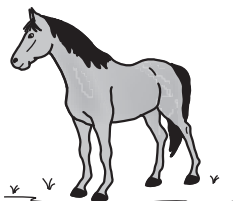


35 kilograms

Yes No

Reasonable Weight

3



50 kilograms

Yes No

Reasonable Weight

4



35 kilograms

Yes No

Reasonable Weight



Test Prep

5 Solve.

$$7.93 + 0.09 = \blacksquare$$

A. 7.102

C. 8.02

B. 7.989

D. 10.02

6 Which figure is a quadrilateral with exactly one pair of parallel sides?

A. parallelogram

C. rhombus

B. trapezoid

D. hexagon

Comparing Units of Weight

- ① Put these weights in order from lightest to heaviest.

40 kg 1 kg 75 lb 100 g 1 lb 12 oz 3 tons

100 g, _____, _____, _____, _____, _____, _____.

Fill in each blank with a reasonable unit.

- ② An elephant weighs about 2 tons.

- ③ An adult weighs about 70 _____.

- ④ A newborn baby weighs about 7 _____.

- ⑤ A birthday card weighs about 1 _____.

- ⑥ A box of cereal weighs about 1 _____.



Test Prep

- ⑦ Which number makes the number sentence true?

$$36 \times 81 = 36 \times 80 + \blacksquare$$

A. 30

B. 36

C. 80

D. 81

Using Equations to Estimate

Solve.

- 1 If 7 bags weigh 15 kilograms, is 1 bag more than 2 kilograms?

Yes No

- 2 If 7 bags weigh 15 kilograms, are 10 bags more than 17 kilograms?

Yes No

- 3 If 6 bags weigh 10 kilograms, are 10 bags more than 20 kilograms?

Yes No

- 4 If 10 bags weigh 5 kilograms, is 1 bag more than 1 kilogram?

Yes No

- 5 If 15 bags weigh 13 kilograms, are 21 bags more than 25 kilograms?

Yes No



Test Prep

- 6 If $y = 3x - 18$ and $x = 12$, what is y ? Explain how you found the answer.
